U. S. ARMY CORPS OF ENGINEERS
CIVIL WORKS PROGRAM

CONGRESSIONAL SUBMISSION
FISCAL YEAR 2005

SOUTH PACIFIC DIVISION

Budgetary information will not be released outside the Department of the Army until 2 February 2004

JUSTIFICATION OF ESTIMATES FOR CIVIL FUNCTIONS ACTIVITIES
DEPARTMENT OF THE ARMY, CORPS OF ENGINEERS
FISCAL YEAR 2005

SOUTH PACIFIC DIVISION

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SOUTH PACIFIC DIVISION

Summary

General Investigations	FY 2004 Allocation	FY 2005 Request	Increase or Decrease
Surveys	$ 13,996,000	$11,534,000	$ -2,462,000
Peconstruction Engineering and Design	3,607,000	2,215,000	-1,392,000
Subtotal General Investigations	(17,603,000)	(13,749,000)	(-3,854,000)
Construction, General			
Construction	174,735,000	136,796,000	-37,939,000
Dam Safety Assurance	773,000	4,000,000	3,227,000
Subtotal Construction, General	(175,508,000)	(140,796,000)	(-34,712,000)
Operations and Maintenance			
Project Operations and Maintenance	120,262,000	108,274,000	-11,988,000
GRAND TOTAL, SOUTH PACIFIC DIVISION	$313,373,000	$262,819,000	$-50,554,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
1. SURVEYS – NEW					
a. Navigation Studies: None					
b. Flood Damage Prevention Studies: None					
c. Shoreline Protection Studies: None					
d. Special Studies: The amount of $100,000 is requested to initiate and complete one new ecosystem restoration study.					
California					
Southern California Wetlands Restoration Los Angeles District	100,000	0	0	100,000	0

The Southern California Wetlands Restoration study area encompasses an area from Point Conception to the California-Mexico Border, and includes the coastal counties of Santa Barbara, Ventura, Los Angeles, Orange, and San Diego. The area contains numerous wetland and lagoon areas, which are severely degraded as a result of human activity and natural sediment deposition exacerbated by modifications of natural sediment processes. It is estimated that a minimum of 75 percent of coastal wetlands in Southern California have been lost, resulting in a reduction in wetlands acreage from 53,000 acres to 13,000 acres. The Southern California Wetland Recovery Program is an active State planning activity for long-term strategy to promote restoration of natural process and wetlands. It supports valuable wetland areas, numerous endangered species, critical habitat for commercial fisheries and unique ecological systems. The study will identify problems opportunities and alternatives to foster a more comprehensive approach to coastal wetlands restoration in coordination with better and more scientifically based local planning activities. The potential output from the feasibility study would be recommendations for implementing multiple coordinated wetland restoration projects within the study area. The State of California Coastal Conservancy is the potential local sponsors, is very supportive of the study, understands the two-phase planning process, and is willing to consider participation in 50-50 cost sharing of the feasibility phase study. The reconnaissance phase is scheduled to be completed in September 2005, which is 12 months after initiating the study.

Total – Special Studies	100,000	0	0	100,000	0

e. Comprehensive Studies: None

f. Project Review Studies: None

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
TOTAL SURVEYS – NEW	100,000	0	0	100,000	0

2. SURVEYS – CONTINUING:

a. Navigation Studies: The amount of $175,000 is requested to continue one study in Fiscal Year 2005.

California					
Marina del Rey and Ballona Creek Los Angeles District	3,075,000	2,547,000	8,000	175,000	345,000

Marina del Rey is located in Los Angeles County, about 20 miles southwest of the city of Los Angeles, California. The existing Federal navigation project for Marina del Rey, formerly Playa del Rey Inlet and Harbor, consists of two jetties and navigation channels ranging from 15 to 20 feet in depth and a depth of 12 feet in the interior channels. Marina del Rey is homeport to about 15 commercial fishing boats and is used by 50 other transit boats with a total annual fish catch of nearly 10 million pounds valued at approximately $10 million. There are also about ten charter boat operations and five tour boat operations that are used by over 100,000 people each year. The harbor contains over 6,000 berths, primarily servicing recreational craft. An offshore breakwater was added to the Federal project in 1963. The Corps has performed periodic maintenance dredging to maintain channel depths. Shoaling of the navigation channels is caused by the littoral movement of sediment along the coast as well as material transported out of the Ballona Creek flood control channel. Disposal of the material from Ballona Creek is complicated due to the nature of the contaminants found in the material. There is strong support for Federal investigation of harbor modification, as the complications surrounding disposal of the material in the existing navigation channels are impeding formal maintenance responsibilities and may threaten existing as well as future navigational usage of the harbor. The County of Los Angeles, the local sponsor, signed the Feasibility Cost-Sharing Agreement in February 1997.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $5,300,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,725,000
Reconnaissance Phase (Federal)	425,000
Feasibility Phase (Federal)	2,650,000
Feasibility Phase (Non-Federal)	2,650,000

The reconnaissance phase was completed in February 1997. A completion date is to be determined for the feasibility study.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
a. Navigation Studies: (cont'd)					
TOTAL NAVIGATION STUDIES	3,075,000	2,547,000	8,000	175,000	345,000
b. Flood Damage Prevention Studies: The amount of $3,116,000 is requested to continue eighteen studies in Fiscal Year 2004.					
Arizona					
Santa Cruz River (Grant Road to Ft. Lowell Road) Los Angeles District	1,375,000	426,000	65,000	100,000	784,000

The study area is located along the Santa Cruz River, from Fort Lowell Road to Grant Road, approximately five miles northwest of downtown Tucson, Arizona. The study would determine if there is a Federal interest in providing flood control to the properties along the river. Potential measures include both structural and non-structural methods. The Santa Cruz River is characterized by large violent flood events, which carry high volumes of sediment, and cause extensive erosion and inundation of adjacent land. The University of Arizona's Agricultural Research Station is at high risk during large flood events. Pima County, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 2002.

Fiscal Year 2004 funds will be used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,375,000
Reconnaissance Phase (Federal)	375,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase was completed in September 2002. A completion date is to be determined for the feasibility study.

California					
Coyote Dam San Francisco District	$2,445,000	141,000	14,000	200,000	2,090,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Damage Prevention Studies: Coyote Dam (cont'd)

The study area is located in northern California on the east fork of the Russian River at Coyote Valley, near the city of Ukiah. The Russian River drains an area of 1,485 square miles. Approximately two-thirds of this area is in Sonoma County, with the remainder in Mendocino County. The existing Corps project, Coyote Dam, which was completed in 1957, consists of an earth-filled dam 160 feet high and 3,560 feet long, with a reservoir storage capacity of 122,000 acre feet. The authorized project included sediment, flood control, and domestic and agricultural water supply pools with a storage capacity of 199,000 acre feet. An additional water supply portion, which included additional storage for about 77,000 acre feet, was placed in the deferred category as local interest considered it unnecessary at that time. Since then, increased development has caused a need for additional water supplies as well as improvements for flood control. During the storms of February 1986, an estimated $30 million in damages occurred along the Russian River (Hopland to Ukiah) in Sonoma and Mendocino Counties. Severe property damage also occurred to public, residential, and commercial properties in the town of Guerneville where the Russian River overtopped its banks. The Mendocino County Russian River Flood Control District, the local sponsor, expressed support for the study in January 2003, understand the two-phase planning process, and are willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in March 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase at full Federal expense, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $4,600,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,745,000
Reconnaissance Phase (Federal)	145,000
Feasibility Phase (Federal)	2,300,000
Feasibility Phase (Non-Federal)	2,300,000

The reconnaissance phase is scheduled for completion in March 2004. The feasibility phase completion date is to be determined.

Grayson and Murderer's Creeks Walnut Creek Basin Sacramento District	1,850,000	136,000	170,000	300,000	1,244,000

The study is located near the city of Pleasant Hill in Contra Costa County, California, about 20 miles east of the city of San Francisco, and comprises about 180 square miles. The study area has a population of over 400,000 and serves as a commercial and industrial center for the surrounding region. The study, which includes the Grayson and Murderer's Creek watersheds focuses on two of the five primary tributaries to the completed Walnut Creek Project authorized by the Flood Control Act of 1960. As a result of continued rapid urbanization, much of the upper Walnut Creek Basin is experiencing flood and drainage problems outside of the existing Walnut

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Damage Prevention Studies: Grayson and Murderer's Creeks, Walnut Creek Basin (cont'd)

Creek Project area, and several tributary channels are inadequate to handle increased floodflows. Flooding in 1982 and 1983 caused about $18 million in damages to unprotected areas of the Walnut Creek Basin. A feasibility study was initiated in June 1989 to reevaluate the feasibility of flood control on specific sections of Murderer's, Grayson, San Ramon, Tice, and Green Valley Creeks. The study resulted in a negative feasibility report due to economic infeasibility of all project alternatives and was terminated in December 1992. The local sponsor, Contra Costa County Flood Control and Water Conservation District, requested a resumption of the study due to continued flooding problems, particularly along Grayson Creek. The study focuses on construction of a detention basin, estimated to cost between $25 and $35 million, to alleviate the flood threat. Contra Costa County Flood Control and Water Conservation District expressed renewed support for a feasibility study with the submission of a letter of intent in September 2002. The county understands the two-phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement was signed in June 2003.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $3,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,600,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,750,000
Feasibility Phase (Non-Federal)	1,750,000

The reconnaissance phase was completed in June 2003. The feasibility study completion is to be determined.

Poso Creek Sacramento District	1,450,000	197,470	30,000	200,000	1,022,530

The White River, Poso and Deer Creeks reconnaissance phase study, which was initially funded in the Energy and Water Development Appropriations Acts of 1999 and 2000, recommended that the studies continue into the feasibility phase as two separate studies, one as White River and Deer Creek and the second as Poso Creek. The study area is in Kern County in central California along Poso Creek. In January 1981 the Corps prepared a reconnaissance-level report that determined flood control measures for this area to be economically infeasible. However, during the past 20 years, frequency of flooding has greatly increased and extensive land development and improvements have occurred in the area. As a result of the January 1997 floods, State Highway 99, a major artery linking Northern and Southern California, was closed for over a week and flood damage occurred in the town of McFarland. This was the fifth time in 40 years that flooding occurred in the area. The reconnaissance study addresses the economic benefits of various alternatives including detention facilities, levees and channels, and floodproofing. The feasibility study will investigate the economic, environmental, social and engineering feasibility of the alternative plans. The Poso Creek Improvement Joint Powers Agreement Agencies, the local sponsor,

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Damage Prevention Studies: Poso Creek (cont'd)

signed the Feasibility Cost Sharing Agreement in October 2000.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,850,000
Reconnaissance Phase (Federal)	50,000
Feasibility Phase (Federal)	1,400,000
Feasibility Phase (Non-Federal)	1,400,000

The reconnaissance phase was completed in October 2000. The feasibility study completion date is to be determined.

San Bernardino County Los Angeles District	1,170,000	143,000	81,000	100,000	846,000

The study area encompasses approximately 12 square miles in the vicinity of Yucaipa within San Bernardino County, in southern California. The City of Yucaipa's current population is approximately 46,000. Wilson Creek and Oak Glen Creek originate in the San Bernardino Mountains and flow in a south and southwesterly direction and join each other in Yucaipa. The drainage has been altered by urbanization, resulting in changes to the floodway, sediment movement and habitat. Runoff has increased substantially posing an increased flood risk within the city limits. The investigation will evaluate for flood control and environmental restoration. The San Bernardino County Flood Control District, the local sponsor, signed the Feasibility Cost Sharing Agreement September 2003.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,090,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	1,045,000
Feasibility Phase (Non-Federal)	1,045,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Damage Prevention Studies: San Bernardino County (cont'd)

The reconnaissance phase was completed September 2003. A completion date is to be determined for the feasibility study.

San Joaquin River Basin, Frazier Creek Sacramento District	1,560,000	45,450	24,550	130,000	1,360,000

The study area is located on the western slope of the Sierra Nevada range in Tulare County between the towns of Porterville and Strathmore. Frazier Creek is an uncontrolled stream that once was a tributary of the Tule River. Frazier Creek flows were blocked by the construction of the Friant-Kern Canal, and have the potential to cause flooding to the town of Strathmore. Frazier Creek has flooded valuable agricultural lands numerous times just in this decade, most recently in 1998. County roads become impassable and lives, homes and farms are threatened. In 1998, flooding threatened nearby communities in the area including the community of Strathmore with a population of approximately 2,350. The study will investigate flood control alternatives, including a small dam structure and a permanent channel to an existing canal. Tulare County, the potential local sponsor, has expressed support for the study, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in late Fiscal Year 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase at full Federal expense and, if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,060,000
Reconnaissance Phase (Federal)	60,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase is scheduled for completion in late Fiscal Year 2004. The feasibility study completion is to be determined.

San Joaquin River Basin, Tuolumne River and Tributaries Sacramento District	1,007,000	231,000	100,000	200,000	476,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Damage Prevention Studies: San Joaquin River Basin, Tuolumne River and Tributaries (cont'd)

The study area is located on the western slope of the Sierra Nevada mountain range in Tuolumne and Stanislaus Counties in Northern California. The watershed drains into the San Joaquin River and is bounded on the north by the Stanislaus River watershed and on the south by the Merced River watershed. The city of Modesto is the largest urban community in the study area with a population of 198,600 (January 2002) and is located approximately 80 miles south of Sacramento. The major water resource project located in the study area is Turlock Irrigation District's New Don Pedro Reservoir. It provides storage for flood control, water supply, and hydropower generation. Other non-Federal water supply reservoirs include Hetch Hetchy, Cherry Lake, and La Grange. The Tuolumne River drains an area of about 1,960 square miles from the Sierra Nevada range to the San Joaquin River. Dry Creek is the largest unregulated stream in the basin below New Don Pedro Reservoir and causes significant flood problems in the Modesto area. Dry Creek drains an area of about 196 square miles. Historically, flood waters overflow the defined channels along the Tuolumne River and Dry Creek during significant storms. Floods in January 1997 forced over 1,400 homes to be evacuated and resulted in damages at about $14 million in and around Modesto. The State of California Reclamation Board, the local sponsor, expressed support for the study in October 1998, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase studies. Stanislaus County, the City of Modesto, Turlock Irrigation District, and Modesto Irrigation District have also expressed support for the study. The Feasibility Cost Sharing Agreement was signed 24 September 2002.

Fiscal Year 2004 funds will be used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $1,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,907,000
Reconnaissance Phase (Federal)	107,000
Feasibility Phase (Federal)	900,000
Feasibility Phase (Non-Federal)	900,000

The reconnaissance phase was completed in September 2002. The feasibility study completion is to be determined.

San Joaquin River Basin, West Stanislaus County Orestimba Creek Sacramento District	2,197,000	1,473,000	150,000	200,000	374,000

The study area is located in Western Stanislaus County approximately 20 miles southwest of Modesto, California. The city of Newman and the surrounding agricultural lands suffered significant losses from flooding in 1998, 1995, 1986, 1983, and 1980. In March 1995, Newman experienced the worst flood in its 107-year history.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Damage Prevention Studies: San Joaquin River Basin, West Stanislaus County, Orestimba Creek (cont'd)

Structures within the town were flooded by over two feet of sediment-laden water. Estimated damages from this event included $1.6 million in agricultural damages and $4.0 million in urban damages, for a total of approximately $5.6 million. Riparian habitat for the endangered Valley Elderberry Longhorn Beetle has also been affected by flooding in the area. Over the past 50 years, changes to the topography and drainage patterns have occurred with the construction of the Delta Mendota Canal, the California Aqueduct and Interstate 5. These changes have significantly affected hydrology and sediment yields entering the creeks in this area, contributing to increased flooding. Alternatives being considered include a flood attenuation basin, bypass channel, and channel improvements. A feasibility report is scheduled for completion in FY 2006. Due to revising the scope of the West Stanislaus County Feasibility Study to address specific basin concerns and schedules, the local sponsor, Stanislaus County, requested that the study be separated into two separate studies: West Stanislaus County, Orestimba Creek feasibility study, and West Stanislaus county, Del Puerto and Salado Creeks feasibility study, which is scheduled for initiation following completion of the Orestimba study.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $4,200,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,297,000
Reconnaissance Phase (Federal)	97,000
Feasibility Phase (Federal)	2,100,000
Feasibility Phase (Non-Federal)	2,100,000

The reconnaissance phase was completed in September 1998. The feasibility study completion is to be determined.

Sutter County Sacramento District	1,308,000	773,000	200,000	275,000	60,000

The study area is located within the boundaries of the Sacramento River Flood Control Project in Sutter County, California and includes the Sacramento, Feather and Bear Rivers, Sutter and Tisdale Bypass, Yuba City and communities of Live Oak, Meridian, Robbins and Nicolaus. Results from levee evaluation studies on the Sacramento Urban Area, Marysville/Yuba City, Mid-Valley, Lower and Upper Sacramento Area levee reconstruction projects indicate that structural problems caused by on-going seepage exist. The Corps is addressing levee reconstruction under these projects. The reconnaissance study addressed levee improvements beyond reconstruction in these areas and investigated new areas for flood prevention. As a result of the January 1997 floods, high water caused seepage and boils, and a levee break occurred threatening the town of Meridian. In addition, seepage and boils were identified on the south levee of the Tisdale Bypass. The levee was stabilized by

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Damage Prevention Studies: Sutter County (cont'd)

constructing a stability berm under emergency construction authority. The State of California and Sutter County, the local sponsors, signed the Feasibility Cost Sharing Agreement in March 2000.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,558,000
Reconnaissance Phase (Federal)	58,000
Feasibility Phase (Federal)	1,250,000
Feasibility Phase (Non-Federal)	1,250,000

The reconnaissance phase was completed in March 2000. The feasibility study completion is to be determined.

Upper Penitencia Creek San Francisco District	2,045,000	1,539,000	322,000	46,000	138,000

The study area, extending along 3.6 miles of Upper Penitencia Creek and its watershed, is located in the northwest portion of Santa Clara County, California, adjacent to the city of San Jose. Flooding has occurred in the watershed from Upper Penitencia Creek flows in 1955, 1958, 1962, 1963, 1973, 1980, 1982 and 1983. The 1982 flood, an approximate 10-year event, resulted in over $2 million in damages. The flood plain contains approximately 1,600 properties, that are subject to flood damage. It is estimated that a 100-year flood event would cause $51 million in damage. A study was initiated by the Soil Conservation Service which developed feasibility level plans for flood damage reduction, but the amount of agricultural benefits identified in the analysis was insufficient to permit Soil Conservation Service participation. The Corps of Engineers was requested by the local sponsor to continue the effort. The improvements proposed by the Soil Conservation Service include flood proofing, new levees, floodwalls, bypass channels, channel realignment, grade stabilization and vegetative work in order to provide a 100-year level of flood protection. The reconnaissance study provided a review of the Soil Conservation Service study efforts and identified the remaining tasks to be performed during the feasibility and design phases. The Santa Clara Valley Water District, the local sponsor, signed the Feasibility Cost Sharing Agreement in March 1998.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $3,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Damage Prevention Studies: Upper Penitencia Creek (cont'd)

Total Estimated Study Cost	$3,745,000
Reconnaissance Phase (Federal)	345,000
Feasibility Phase (Federal)	1,700,000
Feasibility Phase (Non-Federal)	1,700,000

The reconnaissance phase was completed in March 1998. The feasibility phase completion date is to be determined.

White River and Deer Creek Sacramento District	697,000	97,000	10,000	100,000	490,000

The White River, Poso and Deer Creeks reconnaissance phase study, which was initially funded in the Energy and Water Development Appropriations Acts of 1999 and 2000, recommended that the studies continue into the feasibility phase as two separate studies, one as White River and Deer Creek and the second as Poso Creek. The study area is located near the town of Earlimart in Tulare County in central California, along White River and Deer Creek. In January 1981 the Corps prepared a reconnaissance-level report that determined flood control measures for this area to be economically infeasible. However, during the past 20 years, frequency of flooding has greatly increased and extensive land development and improvements have occurred in the area. As a result of the January 1997 floods, State and Federal disaster assistance was granted to the town of Earlimart, which suffered millions of dollars of damage to homes and other structures. State Highway 99, a major artery linking Northern and Southern California, was closed for over a week due to the flooding. This was the fifth time in 40 years that flooding occurred in the area. The reconnaissance study addresses the economic benefits of various alternatives including detention facilities, levees and channels, and floodproofing. The feasibility study will investigate the economic, environmental, social and engineering feasibility of the alternative plans. Tulare County, the potential sponsor, expressed support for the study in November 1999, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in late Fiscal Year 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase at full Federal expense and, if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,200,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Damage Prevention Studies: White River and Deer Creek (cont'd)

Total Estimated Study Cost	$1,297,000
Reconnaissance Phase (Federal)	97,000
Feasibility Phase (Federal)	600,000
Feasibility Phase (Non-Federal)	600,000

The reconnaissance phase is scheduled for completion in late Fiscal Year 2004. The feasibility study completion is to be determined.

Wildcat and San Pablo Creeks San Francisco District	$2,100,000	53,000	57,000	100,000	1,890,000

The study area is located in the cities of Richmond and San Pablo, California, about 12 miles northeast of San Francisco. Reach 1 of the authorized flood control project was completed by the Corps in 1995, and is located in the city of Richmond. Reach 2, within the city of San Pablo, was not constructed at the time because of concerns about economic justification, and was subsequently placed in the deferred status. Recent flow/frequency projections, and new FEMA floodplains suggest that Reach 2 may be economically justified at this time. The Contra Costa County Flood Control District, the local sponsor, expressed support for the study in April 2001, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in June 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase at full Federal expense, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in June 2004. The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
b. Flood Damage Prevention Studies (cont'd)					
Colorado					
Fountain Creek and Tributaries, North of Pueblo Albuquerque District	1,675,000	240,000	315,000	273,000	847,000

The study area is located along Fountain Creek and its tributaries in central Colorado. The study area includes the cities of Colorado Springs, Pueblo, Fountain, Manitou Springs, and several other small cities and towns. Constricted channel capacity and encroaching development have contributed to flood damages and environmental degradation in the watershed. Fountain Creek and its tributaries have a long history of flooding, with the most recent events occurring in 1997 and 1999. The flood in 1999 caused approximately $100 million in damages. Roads, bridges, and residential and agricultural improvements were flooded, sewer lines were ruptured and significant sedimentation and erosion resulted. The flood of record occurred in 1965 when an estimated 47,000 cubic feet per second flow was recorded at Pueblo. Flows of this magnitude occurring today would cause damages in excess of $42 million. In addition, since 1965, continued urban development has significantly increased storm runoff and peak flood discharges in Fountain Creek. The Corps completed a feasibility study in January 1990 addressing the area's flood problems; however, the results of the feasibility study indicated there were no economically feasible flood control alternatives at the time and the study was terminated. Because of increasing flooding problems along Fountain Creek, the City of Colorado Springs has requested a resumption of feasibility level studies of the Fountain Creek watershed. The City, together with the local Council of Governments, is supporting a comprehensive watershed study. The Feasibility Cost Sharing Agreement was signed in March 2003.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,175,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase was completed in March 2003. A completion date is to be determined for the feasibility study.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
b. Flood Damage Prevention Studies (cont'd)					
New Mexico					
East Mesa, Las Cruces, New Mexico Albuquerque District	600,000	50,000	84,000	106,000	360,000

The study area is located in the contributing watershed in the East Mesa area of the City of Las Cruces, New Mexico. The East Mesa region of Las Cruces continues to grow at a tremendous rate. As this growth occurs, the potential for flooding is increasing dramatically as the amount of water that can be absorbed into the soil is being reduced. Additionally, several small dams, constructed prior to 1940 along the west side of the Organ Mountains, either do not function as designed, are filled with silt, or are unsafe. The City is becoming increasingly concerned regarding this situation and has requested a reconnaissance study to investigate the need for flood control, watershed planning, and ecosystem restoration on the East Mesa of the city of Las Cruces. The city of Las Cruces, the local sponsor, expressed support for the study in July 2001, understands the two phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in July 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase at full federal expense and if the reconnaissance report is certified to be in accord with policy, continue into feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary cost of the feasibility phase is $1,000,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,000,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	500,000
Feasibility Phase (Non-Federal)	500,000

The reconnaissance phase is scheduled for completion in July 2004. A completion date is to be determined for the feasibility study.

Española Valley, Rio Grande and Tributaries Albuquerque District	1,290,000	852,000	60,000	50,000	328,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Damage Prevention Studies: Española Valley, Rio Grande and Tributaries (cont'd)

The Española Valley lies at the confluence of the Rio Grande, Rio Chama, Santa Cruz River, and several lesser streams in north-central New Mexico. Española, the largest community in the valley, is located 85 miles south of the New Mexico -Colorado border and 25 miles north of Santa Fe. Six Indian pueblos are located within the study area. Rapid growth and development along the Rio Grande and its tributaries have increased the potential for flooding in many locations. Eighteen floods, caused by summer rainfall or spring snowmelt, have been recorded within the study area since 1865; the most recent in 1958, 1969, 1970, 1978, 1987 and 1991. The floods of 1969 and 1970 damaged residential and commercial buildings, bridges, crops, and irrigation facilities in Española and surrounding towns and Indian Pueblos, causing damages estimated at $2,320,000 and $1,200,000 (October 2003 prices) respectively. A Feasibility Cost Sharing Agreement was signed, and the Feasibility study initiated, in February 1993. An economically justified levee plan was identified with a first cost of approximately $2 million and a benefit cost ratio of 1.8. In September 1996, the feasibility phase was discontinued and reclassified to inactive status due to sponsor difficulties in obtaining real estate assurances from Santa Clara Pueblo. Since that time, a new City administration has been successful in coordinating with Santa Clara Pueblo and is confident any recommended project can be implemented. Santa Clara Pueblo has expressed support for resumption of the study, in a letter dated December 2003, and understands the 50-50 cost sharing of feasibility phase studies.

Fiscal Year 2004 funds are being used to continue coordination with the local sponsor. The funds requested for Fiscal Year 2005 will be used to continue coordination with the local sponsor to determine the future scope and direction of the study. The preliminary estimated cost of the feasibility phase is $1,640,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,110,000
Reconnaissance Phase (Federal)	470,000
Feasibility Phase (Federal)	820,000
Feasibility Phase (Non-Federal)	820,000

The reconnaissance phase was completed in February 1993. A completion date is to be determined for the feasibility study.

Santa Fe Albuquerque District	1,024,000	117,000	86,000	175,000	646,000

The study is located in Santa Fe County, New Mexico, approximately 50 miles northeast of Albuquerque, along the Santa Fe River. The study purpose is to determine the Federal interest in providing flood damage reduction, environmental restoration, and watershed planning within the Santa Fe River drainage area. The area has suffered from flooding, erosion, and environmental degradation for many years. Damages have been numerous and costly to the community. Significant flood events in the Santa Fe area have occurred in 1872, 1904, 1914, 1921, 1929, 1957, and 1968. Detailed data are available only for the most recent floods of August 1957 and July 1968.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Damage Prevention Studies: Santa Fe (cont'd)

During the 1957 flood, extensive bank erosion occurred on Arroyo Mascaras and the Santa Fe River overflowed and damaged streets, bridges, utility lines, and commercial buildings. Newspaper accounts listed damages of $20,000 to buildings and $70,000 to streets and utilities. The 1968 flood caused estimated damages of $400,000. Based on 2003 prices, the total damages for the July 1968 flood would be approximately $5,600,000. Flood flows in excess of the channel capacity, beginning at about the 10-year flood, continue to threaten approximately 200 structures, mostly residential, many of which are designated as historic, as well as streets, highways, bridges, utilities and water supply wells. The City of Santa Fe, the local sponsors, have expressed support for the study, understand the two-phase planning process, and are willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in May 2004.

Fiscal Year 2004 funds will be used to complete the reconnaissance phase at full Federal expense and if the reconnaissance report is certified to be in accordance with policy continue into the feasibility phase. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,924,000
Reconnaissance Phase (Federal)	124,000
Feasibility Phase (Federal)	900,000
Feasibility Phase (Non-Federal)	900,000

The reconnaissance phase is scheduled for completion in May 2004. A completion date is to be determined for the feasibility study.

Texas

Northwest El Paso Albuquerque District	1,275,000	693,000	60,000	305,000	217,000

The study area is located in the northwest section of El Paso, Texas. The study purpose is to determine the Federal interest in providing a flood damage reduction to protect the northwest area of El Paso. The Corps of Engineers completed other flood control improvements for the western portion of the City of El Paso in 1989. Recent rapid development in this area of the City has increased the potential for flooding and related problems. The city of El Paso has a population of 515,000. The current population in the study area is about 5,000 and is expected to increase to over 40,000 by the year 2015. There are approximately 2,000 residences and numerous commercial and industrial structures within the 3,000 acres that are subject to flooding. Intense summer thunderstorms on the west side of the Franklin Mountains cause high flows from storm water runoff into several unnamed arroyos that enter the Rio Grande Valley. There is no existing outlet in the valley to convey these flood

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Damage Prevention Studies: Northwest El Paso (cont'd)

flows to the Rio Grande. Development has encroached on the arroyos and has caused substantial ponding of flood waters. In September 1987, flows resulting from thunderstorms on the 12.4 square mile drainage area flooded several areas in the northwest section of El Paso and caused over $410,000 damage. The reconnaissance study identified a structural alternative consisting of a levee and pumping plant at the confluence of four arroyos and the Rio Grande at the town of Canutillo. In addition, development along arroyos to the north of Canutillo could impact the project by increasing flows in the Rio Grande. The reconnaissance study identified a Flood Plain Management Plan to be performed during the feasibility phase. Potential flood reduction measures are expected to include detention dams, diversion structures, and non-structural alternatives. The City of El Paso, the local sponsor, signed the Feasibility Cost Sharing Agreement in December 1998.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,360,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,455,000
Reconnaissance Phase (Federal)	95,000
Feasibility Phase (Federal)	1,180,000
Feasibility Phase (Non-Federal)	1,180,000

The reconnaissance phase was completed in December 1998. A completion date is to be determined for the feasibility study.

Sparks Arroyo Colonia, El Paso County Albuquerque District	600,000	100,000	153,000	256,000	91,000

The study is located along Sparks Arroyo in southern El Paso County, Texas. Sparks Arroyo is in an area of rapidly expanding population, having doubled to 30,000 since 1990. On June 20, 1999, a local thunderstorm centered in the study area, caused flooding in the community of Sparks Addition and closed Interstate 10 for two hours. El Paso County, Texas, the local sponsor, expressed support for the study in May 1999, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement was signed in July 2003.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
b. Flood Damage Prevention Studies: Sparks Arroyo Colonia, El Paso County (con'd)					
Total Estimated Study Cost	$1,100,000				
Reconnaissance Phase (Federal)	100,000				
Feasibility Phase (Federal)	500,000				
Feasibility Phase (Non-Federal)	500,000				

The reconnaissance phase was completed in July 2003. The feasibility study completion date is to be determined.

TOTAL FLOOD DAMAGE PREVENTION STUDIES	25,668,000	7,306,920	1,982,550	3,116,000	13,262,530

c. Shoreline Protection Studies: The amount of $410,000 is requested to continue two studies and complete one study in Fiscal Year 2005.

California					
California Coastal Sediment Master Plan Los Angeles District	5,100,000	65,000	120,000	32,000	4,883,000

The study area encompasses the entire California coastline, including the near shore ocean environment and the coastal watersheds. The study will evaluate Federal interest in reducing damage associated with shoreline erosion and coastal storms; increasing natural sediment supply to the coast; restoring and preserving beaches and ecological systems; improving water quality along coastal beaches; beneficially using material dredged from ports, harbors and other opportunistic sediment sources. The State of California and the California Coastal Coalition have demonstrated a strong interest to establish a California Coastal Sediment Master Plan. The State of California Resources Agency, the local sponsor, expressed support for the study in November 2003, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of the feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in July 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $10,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

c. Shoreline Protection Studies: California Coastal Sediment Master Plan (cont'd)

Total Estimated Study Cost	$10,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	5,000,000
Feasibility Phase (Non-Federal)	5,000,000

The reconnaissance phase is scheduled to be completed in July 2004. A completion date is to be determined for the feasibility study.

Ocean Beach San Francisco District	$1,520,000	115,000	65,000	200,000	1,140,000

The study area is located along the west boundary of San Francisco and acts as a buffer between the Great Highway and the Pacific Ocean. Erosion of the beach threatens the Great Highway and Westside Sewer Transport Facility located beneath the highway. This study will evaluate alternatives for a long-term solution to the erosion problem. The City of San Francisco, the local sponsor, expressed support for the study in April 2001, understands the two phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in March 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,800,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,950,000
Reconnaissance Phase (Federal)	120,000
Feasibility Phase (Federal)	1,400,000
Feasibility Phase (Non-Federal)	1,400,000

The reconnaissance phase is scheduled for completion in March 2004. The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
d. Shoreline Protection Studies (cont'd)					
San Clemente Shoreline Los Angeles District	950,000	672,000	100,000	178,000	0

The study area is located on the Pacific Coast of Southern California, south of the city of Los Angeles and approximately 59 miles north of the city of San Diego. The city of San Clemente is experiencing a continuous loss of shore protection and recreational beach width. Over the past 20 years, average beach widths have been gradually reduced to about 50 feet. Storm induced waves have become a serious threat over the past several years to coastal residential and commercial properties which include the city of San Clemente's Marine Safety Building, public restroom facilities located on the beach, lifeguard stations, parking areas, and paving near the pier. Due to chronic beach erosion, the railroad corridor between the bluff and the beach is threatened by undermining. As a preventive measure, Orange County Transportation Authority has been selectively placing riprap stones along the most critical segment between North Beach and the Marine Safety Building to reduce wave impacts on the railroad tracks. This maintenance practice of adding additional stones to the existing under-designed revetment has cost an average of $200,000 to $300,000 over every three-year period. The study will investigate alternatives to provide shoreline protection. The City of San Clemente, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 2001.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is $1,700,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,800,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	850,000
Feasibility Phase (Non-Federal)	850,000

The reconnaissance phase was completed in September 2001. The feasibility phase is scheduled to be completed September 2005.

TOTAL SHORELINE PROTECTION STUDIES	7,570,000	852,000	285,000	410,000	6,023,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: The amount of $7,733,000 is requested to continue twenty-two studies and complete two studies in Fiscal Year 2005.

Arizona

Pima County Los Angeles District	3,125,000	1,332,000	650,000	713,000	430,000

The study area is located in Pima County and encompasses the metropolitan area of Tucson, the second largest city in Arizona, Town of Marana and unincorporated Pima County. The study will investigate water resources development opportunities including environmental programs, incorporation of historical cultural features, flood control, and recreation. The study will also address environmentally degraded flood prone areas in conjunction with the Sonoran Desert Conservation Plan completed in October 1998. This plan consists of six elements: ranch conservation, historic and cultural preservation, riparian restoration, mountain parks, habitat, biological and ecological corridor conservation, and critical and sensitive habitat preservation. Organizations such as Defenders of Wildlife, Sierra Club, and civic groups support the conservation plan. Government agencies from local, state and Federal entities are also supportive of this effort. Pima County, City of Tucson and Town of Marana, the local sponsors, signed the Feasibility Cost Sharing Agreement in September 2001.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $6,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	3,000,000
Feasibility Phase (Non-Federal)	3,000,000

The reconnaissance phase was completed in September 2001. A completion date is to be determined for the feasibility study.

Rillito River, Pima County Los Angeles District	1,775,000	1,071,400	291,000	253,000	159,600

The Rillito River is located in Southeast Arizona within Pima County and flows through the city of Tucson, second largest city in Arizona. Study will focus primarily along the river & between Craycroft and Campbell Avenue. The study will investigate development opportunities including water resources & environmental programs, incorporation of historical cultural features, flood control, & recreation. Emphasis is to be placed on environmentally degraded flood-prone areas. Pima County Department of Transportation Flood Control District, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 2001.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Rillito River, Pima County (cont'd)

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $3,200,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests.. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,375,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	1,600,000
Feasibility Phase (Non-Federal)	1,600,000

The reconnaissance phase was completed in September 2001. A completion date is to be determined for the feasibility study.

Santa Cruz River (Paseo de las Iglesias) Los Angeles District	1,900,000	1,309,000	196,000	339,000	56,000

The Santa Cruz River (Paseo de las Iglesias) is located in southeast Arizona, within Pima County. The river flows through the city of Tucson, which is the second largest city in Arizona. The study will focus primarily along the river and the vicinity between the Tohono O'odham Nation, San Xavier District northern boundary line and downstream to Congress Street. The study will investigate the feasibility of a low-flow bank protection, incorporating historic, cultural, flood control, recreation, water resources, and environmental programs. There is a possibility for periodic discharge of Central Arizona Project water into the Santa Cruz River, which may allow for the creation of significant environmental restoration and enhancement of riparian habitat. Pima County Department of Transportation Flood Control District, the local sponsor, signed the Feasibility Cost Sharing Agreement in January 2001.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,685,000
Reconnaissance Phase (Federal)	115,000
Feasibility Phase (Federal)	1,785,000
Feasibility Phase (Non-Federal)	1,785,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Santa Cruz River (Paseo de las Iglesias) (cont'd)

The reconnaissance phase was completed in January 2001. A completion date is to be determined for the feasibility study.

Va Shly-Ay Akimel Salt River Los Angeles District	2,475,000	1,696,000	430,000	349,000	0

The Va Shly-Ay Akimel (pronounced va sha lay akmore) study area is located along approximately 18 miles of the Salt River on the Salt River Pima-Maricopa Indian community between Granite Reef Dam and Price Drive Bridge, in Maricopa County, Arizona. The study is directly upstream of the Rio Salado Tempe Reach Project. The City of Mesa and the Salt River Pima-Maricopa Indian Community have entered into a partnership to restore the Salt River in the east valley. The study will address restoration opportunities and identify measures that restore valuable environmental resources, restore Salt River riparian habitat and wetland habitat, improve water quality through natural filtration in constructed wetlands, as a component of an overall restoration project. The Salt River Pima-Maricopa Indian Community and City of Mesa, the local sponsors, signed the Feasibility Cost Sharing Agreement in September 2001.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is $4,750,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,850,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,375,000
Feasibility Phase (Non-Federal)	2,375,000

The reconnaissance phase was completed in September 2001. The feasibility phase of the study is scheduled to be completed December 2004.

California

Aliso Creek Mainstem Los Angeles District	945,000	182,000	97,000	265,000	401,000

The study area is located in south Orange County, about 40 miles southeast of Los Angeles, California. The watershed covers approximately 36 square miles. This study

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Aliso Creek Mainstem (cont'd)

was previously funded as part of the overall Aliso Creek Watershed Management Study as provided in the Energy and Water Development Appropriations Act of 2000. The findings of this study indicate a Federal interest in providing solutions to the severe environmental degradation and will further examine channel stability, environmental restoration, and recreation along Aliso Creek and tributaries. Channel degradation and flood damage along the mainstem of Aliso Creek and some of its tributaries has caused severe environmental degradation. This degradation has caused increasing monetary and non-monetary losses to adjacent infrastructure and environmental resources. Infrastructure damage in recent years has exceeded $5 million, and is continuing to grow at an increasing rate. The County of Orange requested this separate study to address the specific environmental degradation problems along the mainstem of Aliso Creek. The County of Orange, the local sponsor, expressed support for the spin-off study in January 2003, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of the feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in March 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase of the study, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $1,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,695,000
Reconnaissance Phase (Federal)	195,000
Feasibility Phase (Federal)	750,000
Feasibility Phase (Non-Federal)	750,000

The reconnaissance phase is scheduled for completion in March 2004. A completion date is to be determined for the feasibility study.

Arana Gulch Watershed San Francisco District	$1,120,000	120,000	65,000	100,000	835,000

The study area is located in Santa Cruz County adjacent to the Port of Santa Cruz, California. The port is experiencing a sedimentation problem with their north harbor that lies at the terminus of the watershed. The loss of material to the watershed creates a substantial dredging problem for the port. This study will evaluate potential plans of improvement which could help alleviate navigation problems at the port, as well as address environmental degradation of the watershed. The Santa Cruz Port District, the local sponsor, expressed support for the study in April 2001, understands the two phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be sign in April 2004.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Arana Gulch Watershed (cont'd)

Fiscal Year 2004 funds are being used to complete the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,000,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,120,000
Reconnaissance Phase (Federal)	120,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in April 2004. The feasibility phase completion date is to be determined.

Laguna De Santa Rosa San Francisco District	1,975,000	486,000	97,000	200,000	1,192,000

The Laguna De Santa Rosa is a tributary to the Russian River and is located approximately 13 miles west of Santa Rosa, California. Historically, this area has served as a 7,000-acre storm detention basin during flooding of the Russian River and is a valuable coastal fresh water wetland. During the past decade, several high floods in the Russian River have reduced the ability of the Laguna De Santa Rosa to function as a major flood basin, due to suspected siltation. Thousands of acres of wetlands habitat have been lost or degraded. The study will investigate and evaluate solutions to this siltation problem, to restore both the storm detention function and wetland character of the area. The Sonoma County Water Agency, the local sponsor, signed the Feasibility Cost Sharing Agreement in February 2000.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $3,750,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,850,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,875,000
Feasibility Phase (Non-Federal)	1,875,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Laguna De Santa Rosa (cont'd)

The reconnaissance phase was completed in February 2000. The feasibility phase completion date is to be determined.

Los Angeles County Los Angeles District	2,079,000	397,000	260,000	630,000	792,000

Los Angeles River Estuary (Long Beach), Port of Los Angeles, Port of Long Beach, and Marina del Rey are located within the coastal waters of Los Angeles County. All four areas have a need for the removal and disposal of contaminated dredged sediments. The study will address the need for initiation of maintenance and new dredging activities which have been hampered by the unavailability of disposal sites for contaminated dredged material, resulting in negative impacts to safety, environmental health, and economic development. Los Angeles County, Port of Los Angeles, and City of Long Beach, the local sponsors, signed the Feasibility Cost Sharing Agreement in September 2002.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,079,000
Reconnaissance Phase (Federal)	79,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Non-Federal)	2,000,000

The reconnaissance phase was completed in September 2002. A completion date is to be determined for the feasibility study.

Los Angeles County Drainage Area (Cornfields) Los Angeles District	1,860,000	68,000	35,000	32,000	1,725,000

The study area is located within the Los Angeles County Drainage Area, along the Los Angeles River approximately five miles northeast of downtown Los Angeles, California. The river is mostly concrete lined, providing little environmental or aesthetic relief from urban development. The parcel referred to as, the Cornfields, is a former railroad maintenance and switching yard. The study will evaluate opportunities to restore the river's natural riparian environment and habitat in a highly developed

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Los Angeles County Drainage Area (Cornfields) (cont'd)

urban area, while maintaining the current flood control protection for the river. The State of California and the County of Los Angeles have expressed support for the study in September 2003, and is willing to continue 50-50 cost sharing of the feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in August 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $3,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,600,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,750,000
Feasibility Phase (Non-Federal)	1,750,000

The reconnaissance phase is scheduled to be completed in August 2004. A completion date is to be determined for the feasibility study.

Malibu Creek Watershed Los Angeles District	1,150,000	555,000	175,000	325,000	95,000

The study area is located about 30 miles west of Los Angeles, California, approximately two-thirds of the 109 square miles are located in northwestern Los Angeles County and the remaining third is in the southeastern portion of the county. Malibu Creek Watershed is within the Santa Monica Mountains and is a mix of urban development and open space. Malibu Creek drains into Malibu Lagoon and the Santa Monica Bay. An existing, obsolete water supply dam, Rindge Dam, does not allow steelhead trout to travel beyond the dam's location into Malibu Creek's tributaries and is blocking the flow of sediment to the ocean and area beaches. The study will focus on environmental restoration of Malibu Creek, and specifically, the potential for removal of Rindge Dam. Removal of the dam could double the trout habitat. The sediment behind the dam could also be used to nourish beaches in the city of Malibu. The study will also develop methods to manage the stream's sediment and water quality to facilitate ongoing efforts to improve the ecosystem in Malibu Lagoon so that it will become a thriving wetland. The California State Department of Parks and Recreation, the local sponsor, signed the Feasibility Cost Sharing Agreement in July 2001.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,100,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Malibu Creek Watershed (cont'd)

Total Estimated Study Cost	$2,200,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,050,000
Feasibility Phase (Non-Federal)	1,050,000

The reconnaissance phase was completed in July 2001. A completion date is to be determined for the feasibility study.

Matilija Dam Los Angeles District	2,475,000	1,710,000	390,000	375,000	0

The Matilija Dam is located on Matilija Creek, a tributary to the Ventura River, near the town of Ojai, in Ventura County, California. Ventura County Flood Control District constructed the dam in 1948. The dam itself is no longer functional as a water supply structure, and is identified as a major impediment to the natural flow of the Matilija Creek, which traditionally supported a large population of Steelhead, a migratory fish related to the Salmon, which has recently been placed on the endangered species list. The study is addressing hydrology, hydraulics, dam safety and removal issues, water allocation, flood control and flood plain management issues, sediment removal, transport and beach nourishment, and environmental restoration. Ventura County Flood Control District, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 2001.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to complete the feasibility phase. The estimated cost of the feasibility phase is $4,600,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,775,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	2,300,000
Feasibility Phase (Non-Federal)	2,300,000

The reconnaissance phase was completed in June 2001. The feasibility phase is scheduled to be completed December 2004.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
d. Special Studies (cont'd)					
Mugu Lagoon Los Angeles District	1,300,000	975,000	97,000	140,000	88,000

The study area is located in Ventura County, California and is within the jurisdiction of the United States Navy and State of California. The lagoon contains several Federal and State endangered and threatened species. The quality of the lagoon has been degraded due to sediment from Calleguas Creek and related drainage of contaminants from surrounding agricultural and other development. Mugu Lagoon is one of the few wetlands remaining in Southern California and there is a strong Federal and Local interest. The study will evaluate environmental impacts associated with sediment transport, flood flows, and upstream watershed land-use practices on Mugu Lagoon. The investigation will also include a preliminary evaluation of habitat conditions and causes of degradation, and develop plans and costs of plans to restore and preserve the lagoon area. Ventura County, the local sponsor, signed the Feasibility Cost Sharing Agreement in November 1999.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,400,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,500,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,200,000
Feasibility Phase (Non-Federal)	1,200,000

The reconnaissance phase was completed in November 1999. A completion date is to be determined for the feasibility study.

Napa Valley Watershed Management San Francisco District	2,850,000	675,000	130,000	200,000	1,845,000

The study area, comprised of 426 square miles, is just north of San Pablo Bay and approximately 40 miles northeast of San Francisco, California. Degradation of the watershed has taken place over the years due to natural and man-made causes. Local, state and Federal agencies have formed a workgroup to initiate a planning effort to address this degradation. This study will identify solutions to watershed management issues on the Napa River and tributaries upstream of the city of Napa. The Napa County Flood Control District, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 2001.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Napa Valley Watershed Management (cont'd)

Fiscal year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $5,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,600,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,750,000
Feasibility Phase (Non-Federal)	2,750,000

The reconnaissance phase was completed in June 2001. The feasibility phase completion date is to be determined.

Russian River Ecosystem Restoration San Francisco District	3,671,000	1,032,000	97,000	200,000	2,342,000

The study area consists of the Russian River, which is 110 miles long and flows into the Pacific Ocean about 55 miles north of the entrance to San Francisco Bay. The Corps constructed two multi-purpose reservoirs in the watershed, Lake Mendocino (Coyote Dam) and Lake Sonoma (Warm Springs Dam), and has also constructed other flood control improvements in the area. Problems reported include a significant drop in the water level of the main stem of the river which has caused tributaries to the river to downcut, undermining bridges and exposing water and sewer lines; a lowering of groundwater levels along the floodplain adjacent to the downcut river channel, causing problems for both local water companies and landowners; and current dam operations are believed to have contributed to bank failure, channel scour, and associated loss of both riparian wetlands and private lands. This loss of habitat has affected several species of anadromous fish, now listed as Federal endangered species. The reconnaissance study addressed the effects of flood control improvements on the watershed, restoration of a sustainable riparian ecosystem and anadromous fish habitat, and other beneficial uses. The State of California, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 2000.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $6,650,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Russian River Ecosystem Restoration (cont'd)

Total Estimated Study Cost	$6,996,000
Reconnaissance Phase (Federal)	346,000
Feasibility Phase (Federal)	3,325,000
Feasibility Phase (Non-Federal)	3,325,000

The reconnaissance phase was completed in June 2000. The feasibility phase completion date is to be determined.

Sacramento-San Joaquin Delta Sacramento District	7,755,000	5,187,000	212,000	200,000	2,156,000

The study area is located in Sacramento, San Joaquin, and Contra Costa Counties, California and extends from Walnut Grove south to Tracy and from the city of Stockton west to Suisun Bay. The area within the Sacramento-San Joaquin Delta consists of about 700,000 acres of land segregated into some 100 tracts and islands, bounded by interconnecting waterways and surrounded by 1,100 miles of levees which normally prevent the lands from being inundated by high tides or high river stages. However, flood protection is inadequate for the islands and tracts within the study area. Over 140 levee failures have occurred in the Delta since 1900. About 30 of these failures have occurred since 1980. Lands within these levees are among the most productive agricultural lands in the State, and failures due to levee instability are becoming more prevalent. The major reasons for this instability are the subsidence of island interiors and poor foundation conditions of existing levees. Also, water quality degradation occurs due to saltwater intrusion resulting from levee failures. Damages from levee failures and costs associated with maintenance work are increasing. The most recent levee failures in the study area were in February 1986, which caused damages estimated at $17 million. The flooding of January 1997 necessitated emergency evacuations of some areas and caused numerous boils, cracks, and seepage problems on several islands and tracts throughout the Delta. Emergency contract repairs in the Delta exceeded $3.5 million. The purpose of the study is to determine a regional plan for flood control, salinity intrusion caused by levee failures, navigation, recreation, fish and wildlife, and long-term management of the complex island/waterway network in the Delta. The State of California, the local sponsor, signed the Feasibility Cost Sharing Agreement (FCSA) in August 1991. The State and the Corps are conducting the cost-shared special study with the goal of producing a regional planning report for flood control, environmental restoration, and navigation. Execution of an amendment to the FCSA in February 1997 initiated Phase 2 activities, which included construction of levee test sections on Sherman and Brannan-Andrus Islands to aid in the development of levee design criteria. Further study focusing on specific islands in the Delta will investigate flood protection, ecosystem restoration, and recreation opportunities. The special study includes levee criteria development, geotechnical studies, risk analysis, environmental evaluation, restoration, and economic studies.

Fiscal Year 2004 funds are being used to continue the special study and initiate two reconnaissance studies: North Delta component and evaluation and prioritization of

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Sacramento-San Joaquin Delta (cont'd)

the Delta levees as they pertain to the CalFed Levee System Integrity Program and the levee component of the CalFed Record of Decision signed 28 August 2000. The funds requested for Fiscal Year 2005 will be used to continue the study. The estimated cost of the study is $12,545,000, including $9,580,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests and $2,965,000 for earlier studies at full Federal expense. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$12,545,000
Feasibility Phase (Federal)	7,755,000
Feasibility Phase (Non-Federal)	4,790,000

The feasibility study completion date is to be determined.

Sacramento-San Joaquin River Basins Comprehensive Study Sacramento District	20,300,000	18,238,000	1,058,000	500,000	504,000

The study area includes the entire Sacramento River Basin and San Joaquin River Basin in northern and central California, respectively. Numerous projects are within the study including the Sacramento River Flood Control Project, Sacramento River Bank Protection Project, Chico Landing to Red Bluff Project, and the Lower San Joaquin River and Tributaries Project. Reconnaissance studies were pursued under Northern California Streams, Sacramento River Watershed Management Plan and San Joaquin River Main Stem and Tributaries. As a result of the floods of 1997, the studies were combined in order to conduct a comprehensive assessment of the entire flood control system. Local, State and Federal water resource agencies support a coordinated multi-objective investigation to balance flood damage prevention, environmental restoration, and other water resource purposes within the Sacramento and San Joaquin River Basins. The study provides a long range management program for the Sacramento and San Joaquin River Basins with the objective of improving the flood carrying capacity of the system while restoring and protecting environmental features including wetlands and fish and wildlife habitat. The study includes preparation of a comprehensive post-flood assessment, development of hydrologic/hydraulic models, and the basis of a comprehensive plan for flood damage reduction and environmental restoration. This study will provide a framework for a management plan that can be effectively implemented and supported by local, State and Federal agencies. The State of California, the local sponsor, signed the Feasibility Cost Sharing Agreement (FCSA) in February 1998. An amended FCSA was signed in January 2001 to reflect the current cost and schedule for the Comprehensive Plan. An FCSA is currently being negotiated with Calaveras County for the Stanislaus watershed.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Sacramento-San Joaquin River Basins Comprehensive Study (cont'd)

Fiscal Year 2004 funds are being used to initiate three reconnaissance studies for the Lower San Joaquin River, USACE Reservoir Re-Operation and Butte Basin, initiate a watershed study for the Mokelumne River, Calaveras River and Stanislaus River watersheds in Calaveras County and to continue ongoing feasibility activities. Funds requested for Fiscal Year 2005 will be used to continue the studies. The estimated cost is $35,800,000 of which $4,800,000 is at full Federal expense and $31,000,000 is to be cost shared by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$35,800,000
Feasibility Phase (Federal)	20,300,000
Feasibility Phase (Non-Federal)	15,500,000

The feasibility study completion is to be determined.

San Pablo Bay Watershed San Francisco District	2,800,000	1,119,000	130,000	300,000	1,251,000

The watershed is located within the San Francisco Bay drainage basin in Marin, Sonoma, Napa, Solano and Contra Costa Counties, California. San Pablo Bay is the northern arm of San Francisco Bay. This investigation was initially funded under the authority of Section 503 of the Water Resources Development Act of 1996, as provided in the Energy and Water Development Appropriations Acts of 1998 and 1999. However, based on the desires of the local sponsor, the California Coastal Conservancy, and other interests that support a long term comprehensive plan for management of the watershed, the investigation is now proceeding under the river basin study authority of Northern California Streams as contained in Section 209 of the Flood Control Act of 1962. The California Coastal Conservancy is developing non-regulatory approaches to wetland protection and restoration in conjunction with existing agricultural activities. Within the watershed, there are opportunities to increase the state's wetland acreage by over five percent. Wetlands in the watershed are critically important to migratory waterbirds on the Pacific Flyway and several other endangered species. This study will address potential Federal participation for environmental restoration of the area. The California Coastal Conservancy, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 1999.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $5,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: San Pablo Bay Watershed (cont'd)

Total Estimated Study Cost	$5,500,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,700,000
Feasibility Phase (Non-Federal)	2,700,000

The reconnaissance phase was completed in June 1999. The feasibility phase completion date is to be determined.

Santa Ana River and Tributaries, Big Bear Lake Los Angeles District	4,525,000	275,000	130,000	1,000,000	3,120,000

The study area is located in the San Bernardino Mountains, San Bernardino County, near the headwaters of the Santa Ana River, California. The city of Big Bear is geared towards year-round residents as well as a destination resort with lake sports in the summer and skiing in the winter. The local lake problems are a result of increased sedimentation deposits, which creates excessive noxious aquatic plant growth that contributes to shallow conditions and water quality issues. The study will address these broad ranges of issues and solutions for restoration of aquatic habitat for fish and wildlife, water quality, and flood control capabilities, which will improve public access and recreation opportunities. Big Bear Municipal Water District, the local sponsor, signed the Feasibility Cost Sharing Agreement in July 2003.

Fiscal Year 2004 funds are being used to continue the feasibility phase. Funds in Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $8,700,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$8,875,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	4,350,000
Feasibility Phase (Non-Federal)	4,350,000

The reconnaissance phase was completed July 2003. A completion date is to be determined for the feasibility study.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
d. Special Studies (cont'd)					
Santa Rosa Creek Ecosystem Restoration San Francisco District	2,752,000	908,000	78,000	500,000	1,266,000

The study area is located in Sonoma County, California, and includes most of the city of Santa Rosa. The watershed drains approximately 80 square miles, including a variety of agriculture, parks and open space, and urban land uses. Santa Rosa Creek, a tributary to the Russian River, was channelized in the 1960s to provide flood control protection to the surrounding city of Santa Rosa. The existing riparian vegetation was cleared, instream debris and boulders were removed, and riprap was placed to armor the creek's banks. The flood control project resulted in habitat loss from the removal of pools, riffles, large boulders and woody debris, all of which provided shelter for fish and wildlife. Without the shading effects of the once extensive tree canopy, the creek's water temperature has significantly increased thereby affecting salmonid survival. This habitat loss has also negatively affected the Federally listed threatened steelhead trout and endangered California freshwater shrimp. A draft hydrologic analysis, conducted by the District in August 2002, concluded that improved and unimproved channels within the watershed would experience flows during a 100-year storm event significantly greater than anticipated by the original design documents for those facilities. The District determined that flood-damage reduction was an appropriate purpose under the existing authorization (Water Resources Development Act of 1996) for the Feasibility Study. The reflected cost is a preliminary estimate based on the additional tasks identified, which will increase scope and costs of the study. The City of Santa Rosa, the local sponsor, signed the Feasibility Cost Sharing Agreement in May 1999.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $5,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,252,000
Reconnaissance Phase (Federal)	252,000
Feasibility Phase (Federal)	2,500,000
Feasibility Phase (Non-Federal)	2,500,000

The reconnaissance phase was completed in May 1999. The feasibility study completion date is to be determined.

Sonoma Creek & Tributaries San Francisco District	$2,300,000	347,000	97,000	274,000	1,582,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Sonoma Creek & Tributaries (cont'd)

The study area is located in Sonoma County, California. The Sonoma Creek watershed drains a 170 square mile area into the northern reaches of the San Francisco Bay estuary. This study was originally funded as part of the overall San Pablo Bay Watershed Management study as provided in the Energy and Water Development Appropriations Acts of 1998, 1999, 2000, and 2001. The findings of this study indicate a Federal interest in providing solutions to environmental restoration and flood protection to Sonoma Creek and tributaries. Channelization of the creek to increase farming opportunities is believed to have caused increased flooding in the lower watershed. Also, increased erosion and sedimentation in the upper watershed is impacting geomorphic stability. Potential solutions to be considered in the feasibility study are flood plain restoration, setback levees for flood protection and stream restoration, beneficial reuse of dredged material, and geomorphic modifications to protect, restore, and enhance Sonoma Creek and tributaries. The potential magnitude and types of benefits from these actions would include the restoration of over 14,000 acres of tidal, seasonal, and freshwater wetlands; environmental enhancement of 10 to 15 miles of riparian corridor; and protection to over 20 threatened or endangered listed species. Also, potential significant economic and environmental benefits could be realized by providing flood protection linked with ecosystem restoration. The Southern Sonoma County Resource Conservation District, the local sponsor, signed the Feasibility Cost Sharing Agreement in May 2001.

Fiscal year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for fiscal year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $4,500,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,550,000
Reconnaissance Phase (Federal)	50,000
Feasibility Phase (Federal)	2,250,000
Feasibility Phase (Non-Federal)	2,250,000

The reconnaissance phase was completed in May 2001. The feasibility phase completion date is to be determined.

Westminster, Coyote Creek and Carbon Canyon Creek Watersheds Los Angeles District	1,120,000	120,000	97,000	122,000	781,000

The Coyote Creek and Carbon Canyon Creek Watersheds study areas encompasses approximately 165 square miles, located 25 miles east of Los Angeles in Orange and Los Angeles Counties, California. The study was previously funded as part of the overall Westminster Reconnaissance study as provided in the Energy and Water Development Appropriations Act, 2002. The area is highly urbanized including residential, commercial and industrial development. The creeks vary between rectangular

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Westminster, Coyote Creek and Carbon Canyon Creek Watersheds (cont'd)

and trapezoidal concrete and riprap channels. Some urban creeks have resulted in significant flooding. This study will evaluate improvements for flood control, ecosystem restoration and water supply. The Westminster reconnaissance phase study recommended that Westminster, East Garden Grove and Westminster, Coyote and Carbon Canyon Creeks continue into the feasibility phase as two separate studies. The County of Orange, the local sponsor, signed the Feasibility Cost-Sharing Agreement in March 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase of the study, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$2,120,000
Reconnaissance Phase (Federal)	120,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in March 2004. A completion date is to be determined for the feasibility study.

Westminster, East Garden Grove Los Angeles District	1,285,000	215,000	65,000	416,000	589,000

The Westminster watershed study area encompasses approximately 90 square miles and is located about 25 miles southeast of Los Angeles in Orange County, California. This study was previously funded as part of the overall Westminster Reconnaissance study as provided in the Energy and Water Development Appropriations Act, 2002. The area lies on a flat coastal plain, and is almost entirely urbanized with residential and commercial development. In 1974, 1983, 1990's flood damage occurred along the East Garden Grove-Wintersburg Channel estimated at $2.7 million that affected residential, commercial and industrial development within the cities of Santa Ana, Westminster, Huntington Beach and Fountain Valley. Some urban creeks have caused significant flooding in the area. The study will evaluate improvements for watershed management, flood control, ecosystem restoration and water supply. The Westminster reconnaissance phase study recommended that Westminster, East Garden Grove and Westminster, Coyote and Carbon Canyon Creek Watershed continue into the feasibility phase as two separate watershed studies. The County of Orange, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 2003.

Fiscal Year 2004 funds are being used to initiate the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,140,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Westminister, East Garden Grove (cont'd)

Total Estimated Study Cost	$2,355,000
Reconnaissance Phase (Federal)	215,000
Feasibility Phase (Federal)	1,070,000
Feasibility Phase (Non-Federal)	1,070,000

The reconnaissance phase was completed in September 2003. A completion date is to be determined for the feasibility study.

New Mexico

Middle Rio Grande Bosque Albuquerque District	1,200,000	400,000	195,000	175,000	430,000

The study will address ecosystem restoration and recreation needs within the Middle Rio Grande Basin. The Middle Rio Grande Basin is located in central New Mexico from Cochiti Reservoir to Elephant Butte Reservoir, some 180 miles south. The study area within the Middle Rio Grande Basin includes the Bosque along the Rio Grande from the North Diversion Channel through Albuquerque for approximately 14 miles to the South Diversion Channel. The study area encompasses approximately 2500 acres. River flow regulation by Cochiti Dam upstream of the study area has changed the historical flow regime in the Rio Grande. Water is diverted from the river for irrigation, industrial, and residential uses. Changes in hydrology, channel configuration, land use activities, and the spread of exotic vegetation have adversely impacted the native riverine ecosystem to the extent that the Rio Grande Silvery Minnow and the Southwestern Willow Flycatcher are now listed as endangered under the provisions of the Endangered Species Act. The study will evaluate current conditions within the study area and make recommendations in order to improve environmental quality, reduce fire potential, and develop passive recreation opportunities. Middle Rio Grande Conservancy District, the local sponsor, expressed support for the study in May 1999, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in April 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase of the study at full Federal expense and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,600,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Middle Rio Grande Bosque (cont'd)

Total Estimated Study Cost	$2,000,000
Reconnaissance Phase (Federal)	400,000
Feasibility Phase (Federal)	800,000
Feasibility Phase (Non-Federal)	800,000

The reconnaissance phase is scheduled for completion in April 2004. A completion date is to be determined for the feasibility study.

Rio Grande Basin, NM, CO and TX Albuquerque, Fort Worth, and Galveston Districts	2,200,000	908,000	121,000	125,000	1,046,000

The study will address the water resources needs of the Rio Grande Basin, pursuant to Section 729 of the Water Resources Development Act of 1986 and Section 202 of the Water Resources Development Act of 2000. The Rio Grande Basin is located in the states of Colorado, New Mexico and Texas, and encompasses an area of over 160,000 square miles, from the headwaters of the Rio Grande in central Colorado to its mouth at the Gulf of Mexico near Brownsville, Texas. Water conveyance and delivery, ecosystem degradation, and flooding are major issues in the basin. River flow regulation by nine major dams on the main stem and tributaries for flood control and water delivery has changed the historical flow regime in the Rio Grande. Water is diverted for irrigation, industrial and residential uses. Changes in hydrology, channel configuration, land use activities, and the spread of exotic vegetation have adversely impacted the native riverine ecosystem to the extent that the Rio Grande Silvery Minnow and the Southwestern Willow Flycatcher are now listed as endangered under the Endangered Species Act. This listing is impacting existing flood control and water delivery operations. Another critical issue is the ongoing loss of water supply storage at Elephant Butte Reservoir and Lake Amistad. Unless these losses are addressed, the Rio Grande Basin may lose at least one full year of its drought contingency potential by the year 2050. Many border cities in Texas and Mexico depend on the Rio Grande for water supply. Under international agreements, 60 percent of the Rio Grande water rights below Fort Quitman, Texas belong to Mexico. As a shared resource, it would benefit all users to address regional concerns. Some of the border cities also have rudimentary or non-existent water and wastewater treatment systems, further contributing to the degradation of the environment. The study will evaluate current conditions and make recommendations for improving water management on the Rio Grande in order to improve environmental quality, prevent flooding, and protect the water deliveries required by the Rio Grande Compact and international treaty obligations. Additionally, there is a need to improve reliability of future municipal and industrial and agricultural water supplies and a need to dedicate water (e.g., low flow releases) for environmental purposes such as fish and wildlife restoration and endangered species. Because water supply and flood control in the Rio Grande Basin fall under the management jurisdiction of an international treaty and several Federal, State, and local agencies, the study will identify ways to integrate the programs, policies, and resources of all concerned agencies into a multi-objective water resources plan. Potential sponsors, including the State of New Mexico and the State of Texas, acting through the Texas Water Development Board, expressed support for the study, understand the two-phase planning process and are willing

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

d. Special Studies: Rio Grande Basin, NM, CO, and TX (cont'd)

to consider participation in 50-50 cost sharing of feasibility phase studies. The overall study of the Rio Grande Basin has been divided into two major efforts. The first effort, which is now underway, is a comprehensive data collection study focused on the Middle Rio Grande Reach in New Mexico that will provide information necessary to evaluate surface water/groundwater relationships, evapo-transpiration, and endangered species habitat restoration. The second effort will be a larger comprehensive evaluation of the Rio Grande Basin. Activities underway for this portion of the study currently includes ongoing coordination with over 60 stakeholders representing diverse interests along the Rio Grande in New Mexico and Texas. In addition, the State has been approached by middle Rio Grande Indian Pueblos to partner in expanding the scope of studies to include tribal lands. Potential exists to develop the follow on feasibility study to include 17 Rio Grande Tribes as well as the state of New Mexico. The New Mexico Interstate Stream Commission, the local sponsor for the Middle Rio Grande Comprehensive Data Collection Effort, signed the Feasibility Cost Sharing Agreement in December 2001.

Fiscal Year 2004 funds are being used to continue the feasibility study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of study. The preliminary estimated cost of the study is $3,800,000, which will be shared on a 50-50 percent basis by Federal and non-Federal interests, in accordance with Section 202 of the Water Resources Development Act of 2000. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,100,000
Reconnaissance Phase (Federal)	300,000
Feasibility Phase (Federal)	1,900,000
Feasibility Phase (Non-Federal)	1,900,000

The reconnaissance phase for the New Mexico portion of the study was completed in December 2001. The feasibility study completion date is being determined.

TOTAL SPECIAL STUDIES	74,937,000	39,325,400	5,193,000	7,733,000	22,685,600

e. Comprehensive Studies: None

f. Project Review Studies: None

TOTAL SURVEYS CONNTINUING	111,250,000	50,031,320	7,468,550	11,434,000	42,316,130
TOTAL SURVEYS	111,350,000	50,031,320	7,468,550	11,534,000	42,316,130

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
3. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED), NEW:					
4. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED), CONTINUING:					
a. Navigation: None					
b. Flood Control: The amount of $2,545,000 is requested to continue three PED activities and complete two PED activities in Fiscal Year 2005.					
California					
American River Watershed Sacramento District	20,400,000	16,134,000	3,121,000 1/	415,000	730,000

The American River Watershed drains about 2,100 square miles of mostly mountainous area along the westward face of the Sierra Nevada in northern California counties of Placer, El Dorado and Sacramento. It is comprised of three principal streams which are the North Fork, Middle Fork, and South Fork of the American River that flow generally westward into Folsom Lake, through the city of Sacramento and into the Sacramento River. Folsom Lake and levees along the lower American River, Sacramento River, and tributary streams and channels provide flood protection to the highly urbanized Sacramento area. Potentially flooded areas during rare flood events could have an impact on approximately 410,000 people and an estimated $37 billion in property value. Recent evaluations indicate that the level of flood protection along much of the American River and in the Natomas area is less than the 100-year level. The February 1986 storms filled Folsom Lake and necessitated record releases in excess of design flows downstream. Because of the significant threat, 500 people were put on levee watch as these record flows passed through the city of Sacramento. Due to the 1986 storms, an extensive flood fighting effort was made by the Corps at a cost of $3 million and an additional $10 million was required for post flood repair work. The storms of January 1997 again filled Folsom Lake and releases reached design flows. A levee watch was issued as lower American River levees were significantly stressed. The Feasibility Report for the American River Watershed Investigation was completed in December 1991 and the Division Engineer's Report was issued in February 1992. The Natomas feature of the American River Watershed Project was authorized by the Defense Appropriations Act for Fiscal Year 1993, and the local sponsor, Sacramento Area Flood Control Agency, has essentially completed construction of the Natomas flood control project. Federal Construction General funds were appropriated in Fiscal Year 1998 to initiate reimbursement to the local sponsor for the Federal share of the project. The Defense Appropriations Act for Fiscal Year 1993 also directed the Corps to reevaluate the other features recommended in the Feasibility Report; in accordance with this direction, a Supplemental Information Report was completed in March 1996. The plan of improvement recommended in the Supplemental Information Report provides greater than 500-year level of flood protection and includes a detention dam near Auburn, stabilizing or modifying existing downstream levees on the lower American and Sacramento Rivers, implementing an upgraded telemetered flood warning system, levee work in the Natomas area, and restoring flood control storage space in Folsom Reservoir to a fixed 400,000 acre-feet. The Chief of Engineer's Report deferred recommendation of the detention dam plan but recommended implementation of elements common to the

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Control: American River Watershed (cont'd)

final candidate plans presented in the Supplemental Information Report. These common elements were authorized for construction in the Water Resources Development Act of 1996 and Federal Construction General funds were appropriated in Fiscal Year 1998 for initiation of construction. The Common Elements, as modified by the Water Resources Development Act of 1999, include levee improvements on 21.5 miles of the lower American River and 12 miles along the Sacramento River; levee raising along 1.5 miles of the American River, 10.4 miles of the Sacramento River, and 10 miles of Natomas Cross Canal; stream flow gauges upstream of Folsom Reservoir; and an improved flood warning system along the lower American River. The Water Resources Development Act of 1999 authorized construction of the Folsom Dam Modifications project described in the Supplemental Information Report, as modified by the Sacramento Area Flood Control Agency's Folsom Dam Modification Report, New Outlets Plan, dated March 1998. The estimated cost, as authorized, is $150,000,000, with an estimated Federal cost of $97,500,000 and an estimated non-Federal cost of $52,500,000. Construction General funds were appropriated in Fiscal Year 2001 to initiate construction. Section 566 of the Water Resources Development Act of 1999 authorized additional flood control studies for (a) increasing surcharge flood control storage at Folsom Dam and Reservoir and (b) increased flood protection through levee modifications on the American and Sacramento Rivers and directed the Corps to submit a report to Congress by March 2000 documenting the results of the studies. An interim report, completed in January 2000, provides additional information on two flood damage reduction plans: the Folsom Enlargement Plan and the Modified Stepped Release Plan. Both of these plans, in addition to the already authorized plans, will further reduce the flood risk to Sacramento. A result of the public scoping process is the addition of Folsom Dam advance releases in anticipation of high flood flows as a flood control alternative, and the inclusion of ecosystem restoration as a project purpose. A draft supplemental report describing the alternative plans was completed in September 2001. The non-Federal sponsors selected the Federally supportable 7-foot Folsom Dam raise and ecosystem restoration plan as their preferred plan. The authorized Folsom Dam Mini-Raise project includes: raising Folsom Dam and related dikes/auxiliary dam, modifying L. L. Anderson Dam spillway to lower probable maximum flood (PMF) inflows to Folsom Dam and avoid more costly dam safety work at the dam, construction of a temporary bridge downstream of Folsom Dam with authority to construct a permanent bridge if other agencies provide the funds for the added costs, temperature shutter modifications, and ecosystem restoration projects.

Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design period at full Federal expense. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Cost	20,400,000	Total Estimated Preconstruction Engineering and Design Cost	20,400,000
Initial Federal Share	20,400,000	Ultimate Federal Share	15,950,000
Initial Non-Federal Share	0	Ultimate Non-Federal Share	4,450,000

The cost sharing for construction is estimated to be 65 percent Federal and 35 percent non-Federal for flood control and ecosystem restoration components. Dam Safety construction is at full Federal expense.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
b. Flood Control: American River Watershed (cont'd)					
The project was authorized for construction by the Energy and Water Development Appropriations Act, 2004 at a total cost of $257,300,000, with an estimated Federal cost of $201,200,000 and an estimated non-Federal cost of $56,100,000. Fiscal Year 2004 funds are being used to continue preconstruction engineering and design related to the construction of the Folsom Dam Mini-Raise project. Funds requested for Fiscal Year 2005 will be used to continue preconstruction engineering and design activities other than bridge studies. Preconstruction engineering and design completion is to be determined.					
1/ Construction, General funds provided for American River Watershed (Folsom Dam Mini-Raise)					
Lower Cache Creek, Yolo County, Woodland, and Vicinity Sacramento District	750,000	0	25,000	100,000	625,000
The project area is located about 15 miles northwest of Sacramento, California and includes Clear Lake, the largest freshwater lake in the state. The outlet of Clear Lake is the origin of Cache Creek, which flows generally southeast through the Capay Valley into the Cache Creek Settling Basin and then into the Yolo Bypass. The lake and creek drain about 1,150 square miles. Flooding in the Cache Creek basin is principally caused by runoff of high-intensity rainstorms during the winter and spring. The flood threat in the area is enhanced by the raised bed of Interstate 5 that diverts flood flows into Woodland and a levee system that inadvertently conducts increased flows into the city of Woodland. The Cache Creek levees, which protect the cities of Woodland and Yolo, were designed for approximately a 10-year level of flood protection. The Corps completed two reconnaissance studies, Westside Tributaries to Yolo Bypass and Northern California Streams, Cache Creek Environmental Restoration in June 1994 and December 1995, respectively, which addressed increasing flood protection in the area. The local sponsors, the City of Woodland and Yolo County chose not to proceed with feasibility studies because Woodland never experienced flooding from Cache Creek. Consequently, the reconnaissance studies were discontinued. However, the Federal Emergency Management Agency has proposed revised flood plain maps which increase the size of the flood plain by 600 percent to include nearly half of Woodland. As a result, local interests renewed their support for the study and funds were provided in the Energy and Water Development Appropriations Act, 2000 to conduct a feasibility study. The feasibility study addressed flood protection alternatives, including improvement of existing levees, new levees or floodwalls, a bypass channel and deepening and widening of the channel. A feasibility report is scheduled for completion in August 2004. The project is not yet authorized for construction. The State of California and the City of Woodland continue to express support for the project, understand the cost sharing requirements during preconstruction engineering and design, and are prepared to execute a cost sharing agreement upon completion of the feasibility study. Preconstruction engineering and design is scheduled to begin in September 2004. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.					

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Control: Lower Cache Creek, Yolo County, Woodland and Vicinity (cont'd)

Total Estimated Preconstruction Engineering and Design Costs	$1,000,000	Total Estimated Preconstruction Engineering and Design Costs	$1,000,000
Initial Federal Share	750,000	Ultimate Federal Share	650,000
Initial Non-Federal Share	250,000	Ultimate Non-Federal Share	350,000

The cost sharing for construction of the project will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. Fiscal Year 2004 funds are being used to initiate preconstruction engineering and design. Funds requested for Fiscal Year 2005 will be used to continue preconstruction engineering and design. Preconstruction engineering and design completion is to be determined.

Pajaro River at Watsonville San Francisco District	6,445,000	5,135,000	328,000	400,000	582,000

The project is located in the city of Watsonville and vicinity, about 100 miles south of San Francisco, California. The city of Watsonville has experienced continued flooding from the Pajaro River and from its tributaries, Corralitos and Salsipuedes Creeks. The construction of levees to provide a 50-year level of flood protection was completed by the Corps of Engineers in June 1949. Project improvements included about 11.8 miles of levee construction on Pajaro River and 2.4 miles on Corralitos Creek. The maximum flood of record, that of December 1955, would have caused an estimated $177 million damages to the Pajaro River under October 2002 prices and conditions of development. The recommended project includes construction of floodwalls and/or levees along Salsipuedes and Corralitos Creeks, which will provide a 100-year level of protection. Preconstruction engineering and design studies will also evaluate alternative plans that will provide 100-year flood protection to both urban and agricultural lands along the border of Santa Cruz and Monterey Counties. Current costs and benefits are being updated as part of the General Re-evaluation Report, scheduled for completion in June 2005. The Counties of Santa Cruz and Monterey, the local sponsors, stated their support for the project in May 2001. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed, but will be financed through the preconstruction engineering and design period at full Federal expense. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$6,445,000	Total Estimated Preconstruction Engineering and Design Cost	$6,445,000
Initial Federal Share	6,445,000	Ultimate Federal Share	4,835,000
Initial Non-Federal Share	0	Ultimate Non-Federal Share	1,610,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

b. Flood Control: Pajaro River at Watsonville (cont'd)

The project is authorized for construction and the cost sharing for construction of the project will be 75 percent Federal and 25 percent non-Federal in accordance with Section 103(1) of the Water Resources Development Act of 1986. Fiscal Year 2004 funds are being used to finalize the recommended plan and to initiate detailed design and environmental coordination. Fiscal Year 2005 funds will be used to continue preconstruction engineering and design. A completion date for preconstruction engineering and design is being determined.

Yuba River Basin Sacramento District	2,250,000	1,400,000 1/	750,000 2/	100,000	0

The project area is located between the Feather and American River Basins in northern California, primarily in Sutter and Yuba Counties approximately 50 miles north of Sacramento. The principal urban centers within the project area include Marysville and Yuba City with current population (January 2003) of 12,500 and 48,350, respectively. The Marysville and Yuba City area has experienced major floods which include the floods of November 1950, December 1955 and December 1964/January 1965 which were the most widespread and destructive. Record floodflows occurred with the 1955 flood, and resulted in the loss of 37 lives when a levee on the Feather River south of Yuba City failed. Modifications to flood protection facilities in the intervening 10 years, including partial completion of the State's Oroville Dam project, helped to prevent damage during the 1964-65 flood that may well have exceeded that caused by the 1955 flood event. About 100,000 acres of land were inundated in 1955. Despite existing flood protection to the area, it is still vulnerable to catastrophic flooding as demonstrated by the flood in February 1986. During the February 1986 flood, the south levee on the Yuba River failed, inundating the towns of Linda and Olivehurst to depths of about 10 feet. Over 24,000 people were evacuated and damages were estimated at $95 million. During the recent floods of January 1997, a levee break occurred on the Feather River. The levee was stabilized using emergency construction authority, but not before twenty square miles of land were inundated including the Yuba City airport, roughly 800 homes, and two major highways, 65 and 70. About 15,000 people were evacuated and three lives were lost. Total damage was estimated at $82.4 million. A feasibility report was completed in April 1998. The project was authorized for construction in the Water Resources Development Act of 1999. The total estimated first cost, as authorized, is $26.6 million, with an estimated Federal cost of $17.35 million and an estimated non-Federal cost of $9.25 million. The authorized project includes levee improvements, installation of slurry walls, constructing landside berms, toe drains, and levee raising along the Yuba and Feather Rivers. The benefit-cost ratio is 2.5 to 1 at 6 3/8 percent based upon the latest economic analysis in the Chief's Report dated November 1998. The preconstruction engineering and design cost-sharing agreement was executed with the local sponsor, the State of California Reclamation Board, in June 2000. Due to the potential for levee underseepage for the authorized project, a Limited Re-evaluation Report is currently being prepared. Project costs are expected to approach $80 million. Project reauthorization would be required. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
b. Flood Control: Yuba River (cont'd)					
Total Estimated Preconstruction Engineering and Design Costs	$3,000,000	Total Estimated Preconstruction Engineering and Design Costs		$3,000,000	
Initial Federal Share	2,250,000	Ultimate Federal Share		1,950,000	
Initial Non-Federal Share	750,000	Ultimate Non-Federal Share		1,050,000	

The cost sharing for construction of the project will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996.

The project was authorized for construction by the Water Resources Development Act of 1999. Fiscal Year 2004 Construction General funds are being used to continue engineering and design. Funds requested for Fiscal Year 2005 will be used for preconstruction engineering and design which is scheduled for completion in September 2005.

1/ Includes Construction General funding of $250,000 provided in FY 2003
2/ Construction, General funds.

Nevada					
Truckee Meadows Sacramento District	14,000,000	10,704,000	2,000,000	1,000,000	296,000

The Truckee River basin drains an area of 3,060 square miles in eastern California and western Nevada and empties into Pyramid Lake. The Truckee River flood plain encompasses about 8,900 acres of mostly urban development along both banks of the Truckee River. The maximum flood of record, that of January 1997, caused about $500 million in damages. A feasibility report was completed in February 1985. The project as authorized for construction by the Water Resources Development Act of 1988, includes construction of floodwalls, levees and bridge replacements to provide flood protection to 4,880 acres in Truckee Meadows. Fish and wildlife mitigation and recreation facilities are also included. The total estimated first cost as authorized is $78.4 million with an estimated Federal cost of $39.2 million and an estimated non-Federal cost of $39.2 million. At current price levels the authorized project cost is $119 million. Preconstruction engineering and design studies were initiated in Fiscal Year 1988, but were later deferred due to the lack of economic feasibility. In March 1996, the Washoe County Board of Commissioners requested the Corps to reevaluate the project economics for changed conditions. A reconnaissance study, completed in August 1997, indicated that an economically feasible plan exists and is substantially similar to the authorized project. Resumption of preconstruction engineering and design was initiated in March 1998. A General Reevaluation Report is being prepared to verify the project plan and evaluate updated costs and benefits. A coalition process is being used to incorporate greater public input in identifying flood

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
b. Flood Control: Truckee Meadows (cont'd)					

control, environmental restoration and recreation opportunities to meet the community needs. Preconstruction engineering and design will ultimately be cost shared at the rate required for construction, but will be financed through the preconstruction engineering and design period at full Federal expense. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$14,000,000	Total Estimated Preconstruction Engineering and Design Costs	$14,000,000
Initial Federal Share	14,000,000	Ultimate Federal Share	7,000.000
Initial Non-Federal Share	0	Ultimate Non-Federal Share	7,000,000

Fiscal Year 2004 funds are being used to continue preparation of the General Reevaluation Report and Environmental Impact Statement. Funds requested for Fiscal Year 2005 will be used to continue the General Reevaluation Report and Environmental Impact Statement and initiate plans and specifications. Preconstructioon engineering and design completion is to be determined.

TOTAL FLOOD CONTROL	43,845,000	33,373,000	6,224,000	2,215,000	2,033,000
c. Shoreline Protection: None					
d. Multiple Purpose Power: None					
TOTAL PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES, CONTINUING	43,845,000	33,373,000	6,224,000	2,215,000	2,033,000
TOTAL PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES	43,845,000	33,373,000	6,224,000	2,215,000	2,033,000
GRAND TOTAL – SURVEYS AND PRECONSTRUCTION ENGINEERING DESIGN ACTIVITIES	155,195,000	83,404,320	13,692,550	13,749,000	44,349,130

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Oakland Harbor, California (50-ft) (Continuing)

LOCATION: Oakland Harbor is located in the city of Oakland, California, on the eastern shore of central San Francisco Bay immediately south of the San Francisco-Oakland Bay Bridge.

DESCRIPTION: The project consists of deepening the 4 mile Inner Harbor and 3.4 mile Outer Harbor channels, including the respective turning basins, to 50 feet; widening of channels at various locations; and widening of the Inner and Outer turning basins. Approximately 12.8 million cubic yards of excavated dredged material will require disposal. The middle harbor enhancement area (MHEA) will use about 7 million cubic yards to create 190 acres of shallow water and sub-tidal habitat in an area no longer needed for navigation purposes; approximately 2.6 million cubic yards would be placed at the former Hamilton Army Airfield in Novato, California, as part of a separately authorized tidal wetlands restoration project; approximately 2.9 million cubic yards would be disposed at the existing Montezuma Wetlands Restoration Project (MWRP) in the northeast portion of Suisun Bay, and approximately 0.3 million cubic yards would be transported to the Vision 2000 upland site in the inner harbor. Previously authorized deepening of the 4 mile Inner Harbor and 3.4 mile Outer Harbor to 42 feet deep was completed in July 1998.

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 8.4 to 1.0 @ 6 7/8.

TOTAL BENEFIT - COST RATIO: 8.1 to 1.0 @ 6 7/8.

INITIAL BENEFIT – COST RATIO: 8.1 to 1.0 @ 6 7/8

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation included in the Chief of Engineer’s report approved in April 1999 at 1998 prices.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Appropriation Requirement (COE)		$ 144,000,000	
Estimated Appropriation Requirement (USCG)		300,000	
Estimated Total Appropriation Requirement		144,300,000	
Future Non-Federal Reimbursement		700,000	
Estimated Federal Cost (Ultimate)		143,600,000	
Estimated Non-Federal Cost		$ 140,000,000	
Cash Contribution	$ 123,700,000		
Other Costs	15,600,000		
Reimbursements	700,000		
Total Estimated Project Cost		$ 283,600,000	
Allocations to 30 September 2003		24,505,000	
Conference Allowance for FY 2004		20,000,000	
Allocation for FY 2004		15,456,000	1/
Allocation through FY 2004		39,961,000	28
Allocation Requested for FY 2005		20,000,000	42
Programmed Balance to Complete after FY 2005		$84,039,000	
Unprogrammed Balance to Complete after FY 2005		0	

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	12	To be determined

PHYSICAL DATA

Channels: Deepen the 4 mile Inner Harbor and 3.4 mile Outer Harbor channels to 50 feet; Widen various locations.

Turning Basins: Widen Inner and Outer Basins and deepen to 50 feet.

Habitat: Create 190 acres of shallow water and sub-tidal habitat.

1/ Reflects $4,426,000 reduction assigned savings and slippage, and $118,000 rescission.

JUSTIFICATION: The Port of Oakland services about 85 percent of all general cargo moving through the Golden Gate, 95 percent of which is containerized. The existing Federal navigation channel serving Oakland Harbor is inadequate for efficient shipping operations and vessel safety as a result of increased vessel traffic and large containerships. Cargo movement by larger vessels is hampered by the need to load to less than full capacity and to wait for high tides to avoid grounding hazards. Annual tonnage handled by the Port amounted to approximately 16 million tons in 2001. The Port terminals are considered to be state-of-the-art. The plan of improvement will provide for further development of the harbors to accommodate the new generation of containerships, improve safety of vessel traffic and provide maximum efficiency of Port operations. The majority of ships presently using the Port have design drafts greater than 35 feet. Sixth generation vessels are now coming on line with drafts of 46 feet or greater (up to 48 feet at the present time). The deep draft fifth and sixth generation container ships experience tidal delays, with the result being that many of the shipping lines either bring those ships into Oakland only partially loaded or choose to bypass Oakland altogether. Limited deepening of the Inner Harbor portion of the project to -38 feet was completed in December 1992 and deepening of the Inner and Outer Harbors to -42 feet was completed in July 1998. Vessels may now depart the Port with some additional cargo, but must still arrive light-loaded. The remainder of the project is needed to allow safe and efficient utilization of the Port. Average annual benefits, all commercial navigation, are estimated at $187,885,000 based on 1998 prices. Depths of 50 feet are required for users to efficiently call at the Port of Oakland presently and in the future.

FISCAL YEAR 2005: The requested amount of $20,000,000 will be applied as follows:

Complete Construction on Inner Harbor Phase 1B	$ 6,000,000
Continue Dredging Contract Phase 3C	10,000,000
Complete Middle Harbor Containment	3,000,000
Planning, Engineering and Design	450,000
Construction Management	550,000
Total	$20,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	$11,700,000	N/A
Modify or relocate utilities, roads, bridges (except railroad bridges) and other facilities, where necessary for the construction of the project.	3,900,000	N/A
Pay 25 percent of the costs allocated to general navigation features for deepening to 45 feet, and 50 percent of the costs allocated to general navigation features for deepening greater than 45 feet during construction, and pay 50 percent of the costs of incremental maintenance below 45 feet below mean low water.	59,900,000	$135,000
Pay 25 percent of the costs for beneficial use of dredged material in accordance with Section 204 of the Water Resources Development Act of 1992.	14,500,000	N/A
Pay 100% of the costs for local service facilities.	49,300,000	N/A
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights-of-way, relocations, and dredged material disposal areas provided for commercial navigation.	700,000	N/A
Total Non-Federal Costs	$140,000,000	$135,000

Requirements of Local Cooperation (Continued)

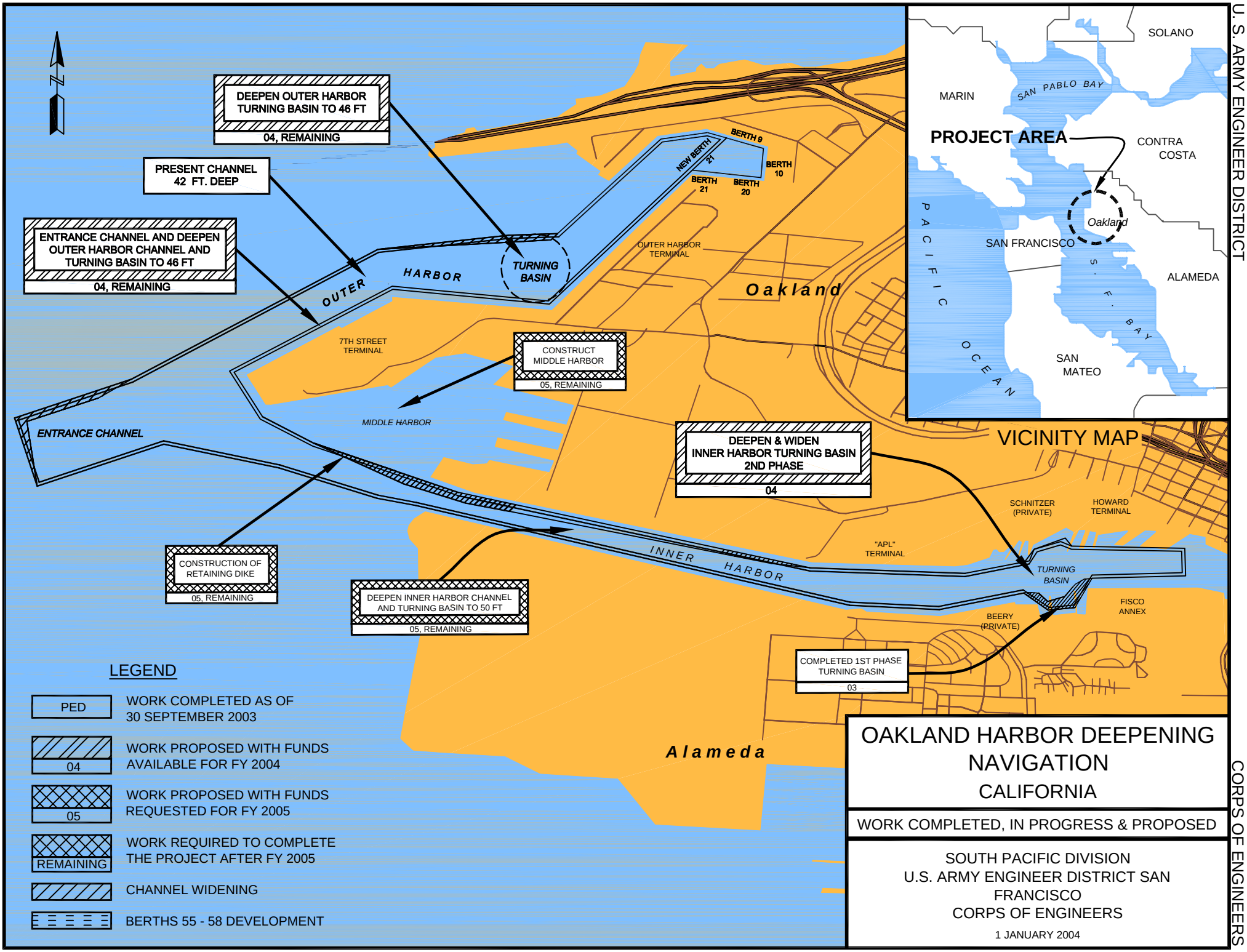
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The non-Federal sponsor, the Port of Oakland, contributed full funding for the feasibility study of the 50 feet deepening of the Inner and Outer Harbor, under the authority of Section 203 of the Water Resources Development Act of 1986. The design agreement was executed on 24 March 1999. The Project Cooperation Agreement was executed on 24 May 2001. The current non-Federal cost estimate of $140,000,000, which includes a cash contribution of $123,700,000, is the same amount reflected in the Project Cooperation Agreement. The non-Federal sponsor has indicated it is financially capable and willing to contribute to the non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $144,000,000 is the same amount as last presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with EPA in May 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1999. Funds to initiate construction were appropriated in Fiscal Year 2001. The initial construction contract was awarded on 27 September 2001.



OAKLAND HARBOR DEEPENING NAVIGATION
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SOUTH PACIFIC DIVISION
U.S. ARMY ENGINEER DISTRICT SAN FRANCISCO
CORPS OF ENGINEERS

1 JANUARY 2004

U. S. ARMY ENGINEER DISTRICT

CORPS OF ENGINEERS

APPROPRIATION TITLE: Construction, General (Navigation)

PROJECT: Port of Los Angeles (Main Channel Deepening), California (Continuing)

LOCATION: The project is located at the Port of Los Angeles on the coast of southern California in San Pedro Bay, approximately 25 miles south of downtown Los Angeles, California

DESCRIPTION: The project consists of deepening the main channel from the current depth of 45 feet to 53 feet. The proposed project would dredge approximately 8 million cubic yards of sediment from the Los Angeles main channel, West basin channel, West turning basin, East basin channel, East turning basin, Cerritos channel with disposal at Southwest Slip, Pier 300 expansion, Cabrillo Shallow Water Habitat expansion, and Pier 400.

AUTHORIZATION: Water Resources Development Act of 2000, Energy and Water Development Appropriations Act of 2004.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable because project is nearing physical completion.

TOTAL BENEFIT-COST RATIO: 4.4 to 1 at 6 5/8 percent.

INITIAL BENEFIT-COST RATIO: 4.7 to 1 at 6 5/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the Chief's Report - Port of Los Angeles Channel Deepening Project dated December 2000 at October 1999 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$58,100,000			Entire Project	70	April 2005
Estimated Non-Federal Cost		$135,900,000					
Cash Contributions	$58,100,000						
Other Cost	77,800,000						
Total Estimated Project Cost		$194,000,000					
Allocations to 30 September 2003		$21,644,000					
Conference Allowance for FY 2004		15,000,000					
Allocation for FY 2004		13,456,000	1/				
Allocations through FY 2004		35,100,000		60			
Allocation Requested for FY 2005		23,000,000		100			
Programmed Balance to Complete after FY 2005		0					
Unprogrammed Balance to Complete after FY 2005		0					

PHYSICAL DATA

Dredge channel to 53 feet at the following locations:
Main Channel, East Basin Channel, West Basin Channel, Cerritos Channel, East Turning Basin, West Turning Basin

Create acres at the following sites:

Southwest Slip Fill	43 acres
Pier 300 Expansion	40 acres
Cabrillo Shallow Water Habitat	54 acres
Pier 400 Submerged Material	125 acres

1/ Reflects $3,320,000 reduction assigned as savings and slippage, $89,000 rescission, and $1,865,000 reprogrammed to the project.

JUSTIFICATION: Port of Los Angeles serves the entire Pacific Southwest with goods passing through the port either to or from all 50 states. Major commodities imported and exported include automobiles, containerized dry and liquid bulk cargoes. Total throughput at the Port of Los Angeles has increased from 44 million metric tons in 1989 to about 59 million metric tons in 2000. Growth in containerized cargo imports is the driving force behind the need for navigation improvements. For the period 1990 through 1996, the combined San Pedro Ports inbound containerized cargo grew from 12 million metric tons to approximately 18.5 million metric tons. In 1999, the Port of Los Angeles alone handled 3.8 million TEU's (Twenty-foot equivalent units, the standard for measuring containerized trade), an increase of 11.7 percent over the 1998 throughput. Vessels drafting more than 40 feet are potentially subject to tidal delays, given a 45 ft channel depth and a required 5 ft of underkeel clearance. Increasing the channel depth to 53 feet is expected to allow the largest containerships over 75,000 dead weight tons to fully load. Dredged material will be used to create new land for terminal development and to create shallow water habitat for environmental mitigation. Average annual benefits, all navigation, are $53,730,000, at October 1999 price levels.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Complete Construction	$21,500,000
Engineering and Design	500,000
Construction Management	1,000,000
Total	$23,000,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Repair, Maintenance, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 100,000	$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	28,500,000	

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Repair, Maintenance, Rehabilitation and Replacement Costs
Pay 50 percent of the costs allocated to general navigation facilities during construction and pay 50 percent of the costs of incremental maintenance below 45 feet below mean low water.	58,100,000	$128,000
Provide associated costs to include locally preferred disposal, berth dredging and wharf upgrades.	50,800,000	
Credit for Federal share of feasibility study cost in accordance with Section 203 Of Water Resources Development Act 1986.	- 1,600,000	
Total Non-Federal Costs	$135,900,000	$128,000

The Non-Federal sponsor has also agreed to make all required payments concurrently with project construction and has been authorized to provide advanced contributions.

STATUS OF LOCAL COOPERATION: The feasibility report, prepared by the Port of Los Angeles, was submitted to the Assistant Secretary of Army (Civil Works) on March 6, 2000 describes the commitment by the Port to cost share the project. The Port of Los Angeles will receive credit for the Federal share of the feasibility study cost pursuant to section 203 of the WRDA 1986. The Project Cooperation Agreement was executed in July 2002.

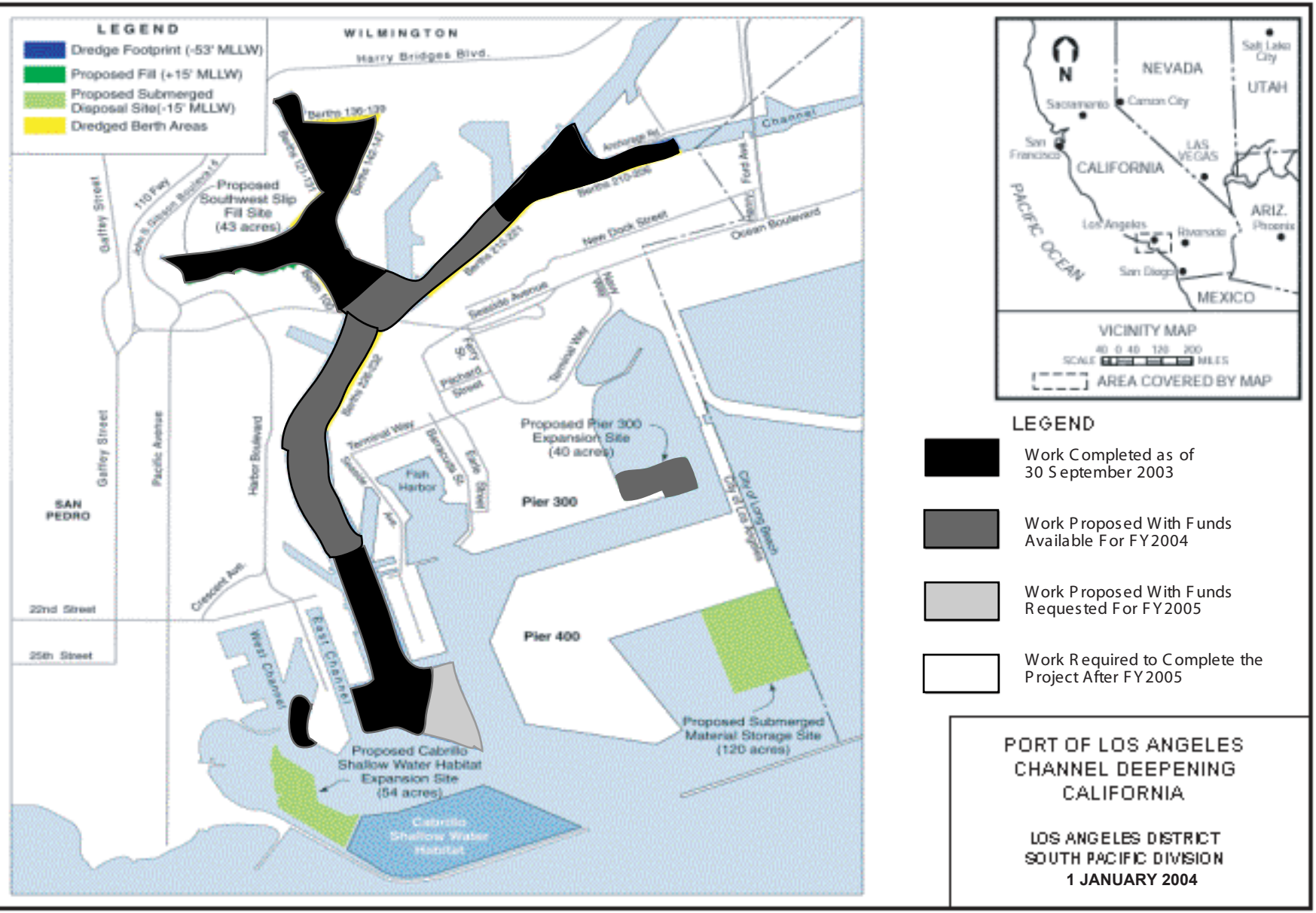
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $58,100,000 is the initial estimate presented to Congress for appropriations.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was completed in September 2000 and the Record of Decision was signed September 2001.

OTHER INFORMATION: Funds to initiate pre-construction, engineering and design were appropriated in FY 2001. Funds to initiate construction were appropriated in FY 2002. The Energy and Water Development Appropriations Act for FY 2004 directs the secretary to credit toward the non-federal share of the cost of the project the cost of planning, design, and construction work carried out by the non-federal interest before the date of the partnership agreement for the project if the Secretary determines the work is integral to the project. A report documenting these costs is being prepared.

U.S. ARMY ENGINEER DISTRICT

CORPS OF ENGINEERS



APPROPRIATION TITLE: Construction, General – Local Protection (Flood Control)

PROJECT: American River Watershed, California (Common Features) (Continuing)

LOCATION: The project area is located in Placer, El Dorado, and Sacramento Counties and is comprised of three principal streams, the North, Middle and South Forks of the American River, which flow westward into Folsom Lake, through the city of Sacramento, and into the Sacramento River.

DESCRIPTION: Recent evaluations indicate that the level of flood protection along much of the American River is less than the 100-year level. The project features consist of modification of the lower American River levees and Sacramento River east levee in the Natomas Basin, modification of Natomas Cross Canal levees, telemetered gages above Folsom Dam, and improving the flood warning system for the lower American River (See OTHER INFORMATION).

AUTHORIZATION: Water Resources Development Acts of 1996 and 1999; Energy and Water Development Appropriations Act, 2004.

REMAINING BENEFIT-REMAINING COST RATIO: 5.7 to 1 at 7-5/8 percent.

TOTAL BENEFIT-COST RATIO: 2.1 to 1 at 7-5/8 percent.

INITIAL BENEFIT-COST RATIO: 4.4 to 1 at 7-5/8 percent (FY 1998).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the Supplemental Information Report (SIR) approved June 1996 at 1995 price levels for work authorized in the Water Resources Development Act of 1996 (WRDA 96). Updated benefits and costs are from the Second Addendum to the SIR approved October 2002 at October 2001 price levels.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$159,000,000
Estimated Non-Federal Cost		53,000,000
Cash Contribution	$42,750,000	
Other Costs	10,250,000	
Total Estimated Project Cost		$212,000,000

STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
WRDA 96 Features	70	Sep 2005
WRDA 99 Features	0	TBD
Entire Project	45	TBD

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2003	$87,527,000 1/	
Conference Allowance for FY 2004	4,000,000	
Allocation for FY 200	5,700,000 2/	
Allocations through FY 2004	93,227,000	59
Allocation Requested for FY 2005	$ 5,000,000	62
Programmed Balance to Complete after FY 2005	60,773,000	
Unprogrammed Balance to Complete after FY 2005	0	

1/ Includes funding during Preconstruction, Engineering and Design (PED) for project elements authorized in WRDA 96.
2/ Reflects $886,000 assigned as savings and slippage, $24,000 rescission and $2,610,000 reprogrammed to the project.

PHYSICAL DATA

Streamflow Gages - Install 3 new telemetered gages upstream of Folsom Lake (WRDA 96)

Flood Warning System – Install on lower American River (WRDA 96)

Closure Structure – Install closure structure at Mayhew Drain (WRDA 99)

Levees:
- Construct slurry and jet grout cutoff wall on 19.7 miles of lower American River levees (WRDA 96)
- Modify 4.4 miles-American River levees (WRDA 99)
- Modify 12.1 miles of Sacramento River levees (WRDA 96)
- Modify 10 miles of Natomas Cross Canal levees (WRDA 99)

JUSTIFICATION: Folsom Dam and Reservoir, located on the American River about 29 miles upstream from Sacramento, are key features in the flood control system protecting Sacramento. Folsom Reservoir has a capacity of 975,000 acre-feet, which includes a minimum of 400,000 acre-feet of space seasonally dedicated to flood control. Currently, Folsom Reservoir is being reoperated to provide additional flood space in some years under an agreement between the United States Bureau of Reclamation and the Sacramento Area Flood Control Agency. With the completion of construction features in FY 2004, the levees are designed and constructed to convey the 100-year event. The levees along the American River are likely to fail with sustained flows above this level. Levee failure along the lower American River and Sacramento River could result in flooding of more than 100,000 acres, affecting approximately 330,000 residents. Damages could range from $7 billion to $16 billion depending on the magnitude of the event. February 1986 storms filled Folsom Lake and necessitated record releases in excess of design flow downstream. Because of the significant threat, 500 people were put on levee watch as these record flows passed through the city of Sacramento. Due to the February 1986 storms, the Corps of Engineers conducted an extensive flood fighting effort at a cost of $3 million and an additional $10 million was required for post flood repair work. The storms of January 1997 again filled Folsom Lake and releases reached design flows. A levee watch was issued as lower American River levees were significantly stressed. The common features project consists of levee modification on 19.7 miles of the lower American River and 12.1 miles along the Sacramento River, as authorized by WRDA 96; levee modification along 4.4 miles of the American River, and modification of 10 miles of the Natomas Cross Canal levees, as authorized by WRDA 99; installing new and telemetering existing streamflow gages above Folsom

JUSTIFICATION (Continued)
Dam, and implementing a new flood warning system on the lower American River, as authorized by WRDA 96. Improvements authorized in WRDA 96 will reduce the probability of flood damage to about a 1 in 90 chance of flooding in any one year. Improvements authorized in WRDA 99 will decrease the probability of flood damage to about a 1 in 100 chance in any one year. Average annual benefits for work authorized in WRDA 96 and WRDA 99 amount to $42,300,000, all flood control, at October 2001 price levels.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Jet Grout Construction	$4,200,000
Planning, Engineering, and Design	500,000
Construction Management	300,000
Total	$5,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 9,940,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	310,000	
Pay 20 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	42,750,000	$ 53,000
Total Non-Federal Costs	$ 53,000,000	$ 53,000

NON-FEDERAL COST (Continued):

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board and Sacramento Area Flood Control Agency (SAFCA) are the non-Federal sponsors. The Project Cooperation Agreement (PCA) was executed in July 1998 for implementation of project features authorized by WRDA 1996. State of California legislation (AB 1147), enacted 31 August 2000, authorizes the State Reclamation Board to participate in the project for flood control along the American and Sacramento Rivers adopted and authorized by Congress in Section 101 (a) (1) of WRDA 96, as modified by Congress in Section 366 of WRDA 99. On 12 September 2001, the Reclamation Board and SAFCA agreed to cost share the increase in cost to the then authorized maximum project cost of $120.6 million. Based on the new project cost estimate of $212,000,000, the non-Federal cost estimate of $53,000,000, which includes a cash contribution of $42,750,000, is an increase of $36,375,000 from the non-Federal cost estimate of $16,625,000 noted in the Project Cooperation Agreement, which included a cash contribution of $7,390,000. The non-Federal sponsor has indicated it is financially capable and willing to contribute the increased non-Federal share.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $159,000,000 is an increase of $68,400,000 from the latest estimate ($90,600,000) presented to Congress (FY 2004). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 5,250,000
Authorized Modifications	63,150,000
Total	$68,400,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Supplemental Environmental Impact Statement/Environmental Impact Report was filed with Environmental Protection Agency on 8 March 1996 (see OTHER INFORMATION).

OTHER INFORMATION: Funds used to initiate preconstruction engineering and design of the common elements were allocated in FY 1996 under American River Watershed Project, CA. Preconstruction engineering and design effort for the long-term plan continues under the American River Watershed Project, California.

The American River Watershed Feasibility Report was completed in December 1991 and the Supplemental Information Report was completed in March 1996. The Supplemental Information Report identified three candidate plans which would help reduce the flood risk facing Sacramento: modifying Folsom Dam and increasing the dedicated flood space; modifying Folsom Dam and the downstream system to allow increased objective releases; and constructing a detention dam upstream of Folsom Dam. In June 1996, the Chief of Engineers deferred a decision on a comprehensive flood control plan, but recommended that features common to all three plans be authorized as the first component of a comprehensive plan.

OTHER INFORMATION (Continued)

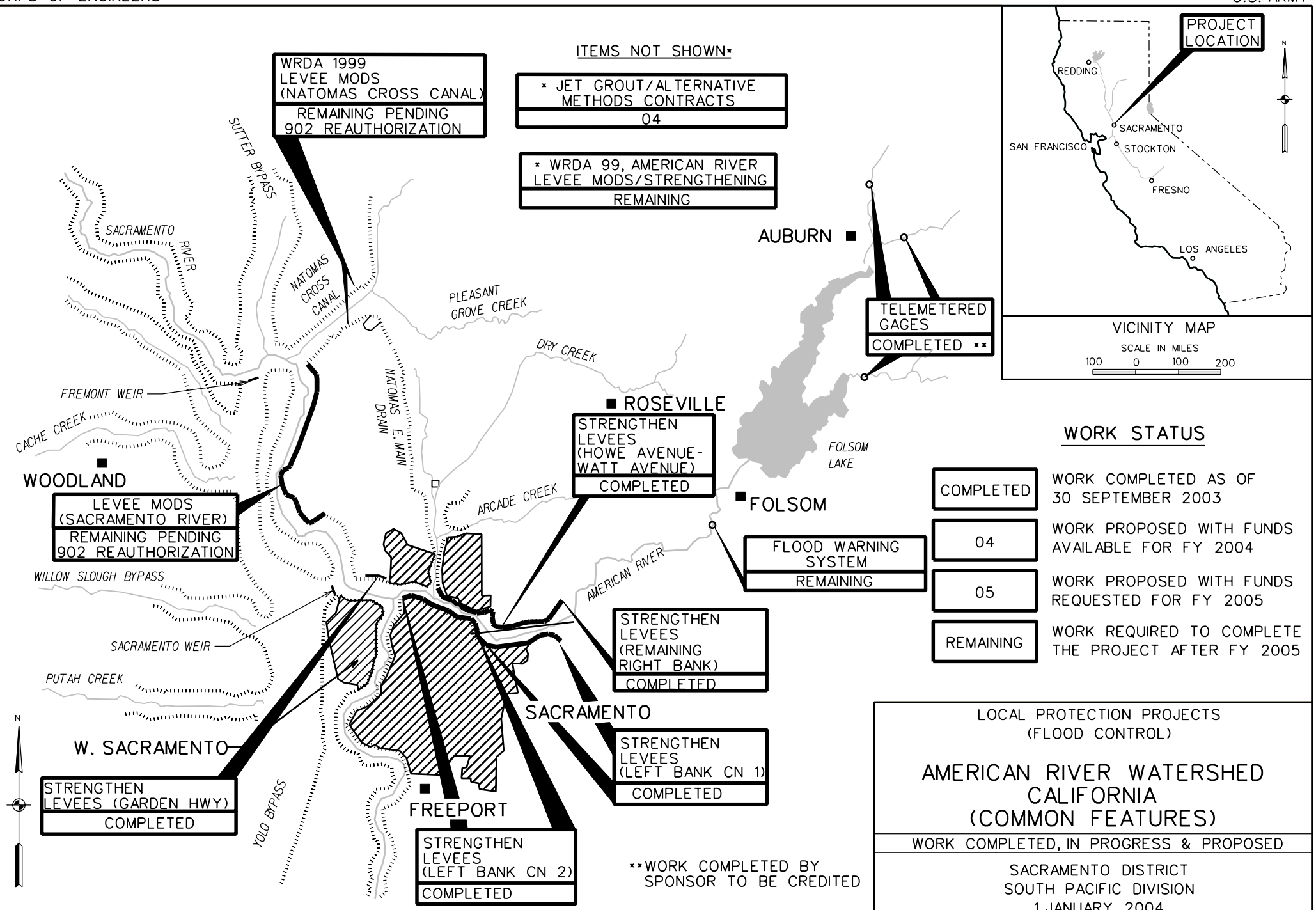
WRDA 1996 authorized construction of the common features. Funds were appropriated in Fiscal Year 1998 to initiate construction. These common features include modification of and telemetering three streamflow gages upstream of Folsom Lake; installing a new downstream flood warning system; constructing a slurry wall in levees on the lower American River; and strengthening and raising levees on the east side of the Sacramento River. Completed WRDA 1996 features include 18.2 miles of slurry wall and 0.3 mile of jet grout work (5 sites) on the lower American River levees and three streamflow gages. Remaining WRDA 1996 work includes jet grout work and slurry wall work (16 sites), the flood warning system, and 12.1 miles of Sacramento River levee modifications.

Additional flood control improvements along the lower American River and the Natomas Cross Canal were authorized by Section 366 of the WRDA 1999 as part of the overall project. Improvements include additional levee raising and strengthening along the lower American River and Natomas Cross Canal and installing a closure structure at Mayhew Drain to prevent backup of floodwater. The cost of slurry wall construction authorized by WRDA 1996 has increased significantly due to increased slurry wall quantities, the technical requirement for the more costly jet grout construction method for slurry wall construction around bridges and deep utilities, and several high-cost contract modifications due to slurry leaks during construction. The cost of planning, engineering and design has also increased. Project reauthorization was required to increase the project cost estimate to complete most of the remaining WRDA 1996 and WRDA 1999 features. The Second Addendum to the SIR, dated March 2002 and revised July 2002, serves as the decision document/post-authorization change (PAC) report. Based on this report, Section 129 of the Energy and Water Development Appropriations Act, 2004 increased the authorized first cost to $205 million.

For implementation of Natomas Basin features (Sacramento River East levee and Natomas Cross Canal levees) a separate decision document/PAC is being prepared to address the previously unknown levee under-seepage problem along the Sacramento River and the associated increased cost.

Construction of the first contract on the lower American River levees was initiated in July 1998.

Fish and wildlife mitigation costs are currently estimated at $1,670,000.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2003
04	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
05	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

AMERICAN RIVER WATERSHED
CALIFORNIA
(COMMON FEATURES)

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2004

06 January 2004
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APPROPRIATION TITLE: Construction, General – Local Protection (Flood Control)

PROJECT: American River Watershed, California (Folsom Dam Modifications) (Continuing)

LOCATION: Folsom Dam and Reservoir, located on the American River, is about 29 miles upstream of the City of Sacramento, California. The American River watershed drains about 2,100 square miles northeast of Sacramento and includes portions of Placer, El Dorado, and Sacramento Counties. Runoff from this basin flows through Folsom Reservoir and passes through Sacramento to the confluence with the Sacramento River.

DESCRIPTION: At present, Folsom Dam is designed to release up to 115,000 cubic feet per second (cfs) during flood operations. The existing eight outlets limit releases to about 36,000 cfs until approximately one half of the reservoir's flood control space is filled. At this level, the pool elevation is sufficient for spillways to release the full 115,000 cfs. The project will modify the existing outlets to allow releases of roughly 115,000 cfs much earlier. Authorized project features consist of: enlarging the eight existing river outlets; adding two new outlets; constructing a stilling basin downstream from the emergency spillway; and modifying the auxiliary spillway gates and dikes at Folsom Dam to raise the surcharge elevation four feet to allow for an additional 48,000 acre-feet of storage. The recent construction authorization for a related project (American River Watershed, Folsom Dam Mini-Raise) to raise the Folsom Dam by seven feet, obviates the need for the surcharge component of the authorized project.

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 2.2 to 1 at 6-7/8 percent. (See OTHER INFORMATION)

TOTAL BENEFIT-COST RATIO: 1.8 to 1 at 6-7/8 percent. (See OTHER INFORMATION)

INITIAL BENEFIT-COST RATIO: 3.4 to 1 at 6-7/8 percent (FY 2001).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the American River Watershed Information Paper dated August 1999 at October 1998 price levels, based on the Supplemental Information Report approved June 1996 at 1995 price levels.

SUMMARIZED FINANCIAL DATA (See OTHER INFORMATION)				STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$139,600,000		Entire Project	Not Started	TBD
Estimated Non-Federal Cost		75,100,000				
Cash Contribution	75,100,000					
Other Costs	0					
Total Estimated Project Cost		$214,700,000				

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2003	$ 23,759,000 1/		Enlarge eight existing river outlets
Conference Allowance for FY 2004	4,000,000		Construct two new outlets
Allocation for FY 2004	2,900,000 2/		Modify existing stilling basin
Allocations through FY 2004	26,659,000	20	Increase surcharge space by additional 24,000 acre-feet
Allocation Requested for FY 2005	$ 6,175,000	25	
Programmed Balance to Complete after FY 2005	96,566,000		
Unprogrammed Balance to Complete after FY 2005	10,200,000		

1/ Reflects partial funding within American River Watershed preconstruction, engineering and design.
2/ Reflects $886,000 assigned as savings and slippage, $24,000 rescission and $190,000 reprogrammed from the project.

JUSTIFICATION: Folsom Dam and Reservoir is a key feature in the flood control system protecting Sacramento. Folsom Reservoir has a capacity of 975,000 acre-feet, which includes a minimum of 400,000 acre-feet of space seasonally dedicated to flood control. Currently, Folsom Reservoir is being reoperated to provide additional flood space in some years under an agreement between the United States Bureau of Reclamation and the Sacramento Area Flood Control Agency. At present, the lower American River levees are designed to accommodate releases from Folsom Dam of up to 115,000 cfs during flood operations. The levees along the American River downstream from Folsom Dam are likely to fail at various locations when sustained flows reach between 130,000 cfs and 160,000 cfs. Levee failure along the lower American River could result in flooding of more than 55,000 acres, affecting approximately 280,000 residents. Damages would range from $7 billion to $13 billion depending on the magnitude of the event. February 1986 storms filled Folsom Lake and necessitated record releases in excess of design flows downstream. Because of the significant threat, 500 people were put on levee watch as these record flows passed through the city of Sacramento. Due to the February 1986 storms, an extensive flood fighting effort was made by the Corps of Engineers at a cost of $3 million and an additional $10 million was required for post flood repair work. The storms of January 1997 again filled Folsom Lake and releases reached design flows. A levee watch was issued as lower American River levees were significantly stressed. Upon completion of the related American River Watershed, Common Features project, the probability of flood damage in Sacramento will be reduced to about a 1-in-100 chance in any one year. The authorized Folsom Dam Modifications project would reduce the risk of

JUSTIFICATION (Continued)
flood damage further to a 1-in-140 chance in any one year. The level of protection provided by the modifications to outlets will reduce the risk of flooding to a 1 in 130-year chance in any year. Average annual benefits amount to $26,000,000 for the Outlet Works (see OTHER INFORMATION); all flood control, at October 2003 price levels.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Outlet Works Contract	$4,000,000
Continue Construction on Emergency Generator/Elevator	900,000
Planning, Engineering, and Design	600,000
Construction Management	675,000
Total	$6,175,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Acts of 1996, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 35 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities for programmed work.	$69,700,000	$ 60,000 3/
Pay 35 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities for unprogrammed work.	$ 5,400,000	$ 0
Total Non-Federal Costs	$75,100,000	$ 60,000 3/

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

NON-FEDERAL COST (continued)

3/ The operation and maintenance (O&M) would continue to be performed by the Bureau of Reclamation. A cost-sharing agreement would be negotiated between the Sacramento Area Flood Control Agency and the Bureau of Reclamation to pay the portion of O&M costs related to the new flood control features.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board and the Sacramento Area Flood Control Agency (SAFCA) are the non-Federal sponsors. The non-Federal sponsor is financially capable and willing to contribute the non-Federal share. State of California legislation (AB 1147), enacted 31 August 2000, authorizes the State Reclamation Board to participate in the project to modify Folsom Dam adopted and authorized by Congress in Section 101 (a) (6) of WRDA 99.

COMPARISON OF FEDERAL COST ESTIMATES (See OTHER INFORMATION): The current Federal cost estimate of $139,600,000 is unchanged from the latest estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Supplemental Environmental Impact Statement/Environmental Impact Report (EIS/EIR) was completed and published in the Supplemental Information Report for American River Watershed Project dated March 1996 (SIR). An Environmental Assessment was completed and published in the American River Watershed, California (Folsom Dam Modifications Project) Limited Reevaluation Report dated August 2001. The Finding of No Significant Impact (FONSI) was signed 16 August 2001.

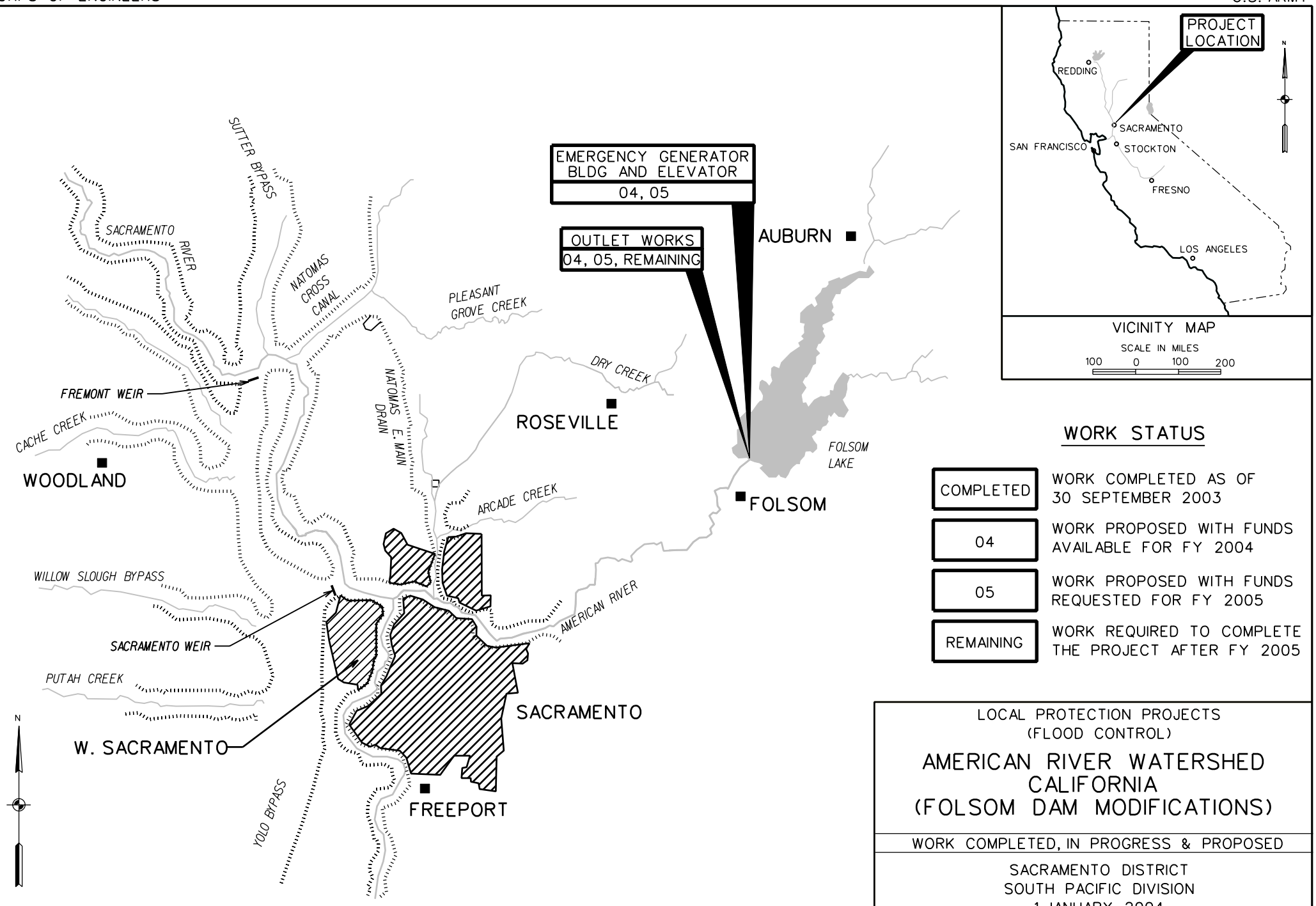
OTHER INFORMATION: Funds used to initiate preconstruction engineering and design of the Folsom Modifications were allocated in Fiscal Year 2000 under the American River Watershed Project, California. Funds to initiate construction were appropriated in Fiscal Year 2001.

The American River Watershed Feasibility Report was completed in December 1991 and the Supplemental Information Report was completed in March 1996. The Supplemental Information Report identified three candidate plans which would help reduce the flood risk facing Sacramento: modifying Folsom Dam and increasing the dedicated flood space; modifying Folsom Dam and the downstream system to allow increased objective releases; and constructing a detention dam upstream of Folsom Dam. In June 1996, the Chief of Engineers deferred a decision on a comprehensive flood control plan, but recommended that features common to all three plans be authorized as the first component of a comprehensive plan. These elements are being constructed within the American River Watershed (Common Features) Project.

SAFCA prepared the Folsom Dam Modification Report New Outlets Plan dated March 1998 (SAFCA Outlet Report), which identified some proposed changes to the Folsom Modification Plan described in the 1996 Supplemental Information Report. The 1996 Supplemental Information Report as modified by SAFCA Outlet Report was the basis for the project authorized under the Water Resources Development Act of 1999.

Fish and wildlife mitigation costs are currently not expected to be significant.

Costs and benefits shown are based on the Final Limited Reevaluation Report, dated November 2003. Average annual costs and flood control benefits for the outlet works component amount to $13.7 million and $26.0 million, respectively.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2003
04	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
05	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

AMERICAN RIVER WATERSHED
CALIFORNIA
(FOLSOM DAM MODIFICATIONS)

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2004

16 January 2004
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2 February 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Guadalupe River, California (Continuing)

LOCATION: The project is located in San Jose, Santa Clara County, California.

DESCRIPTION: The authorized plan consists of channel improvements on the Guadalupe River between Interstate Highways 880 and 280, a distance of approximately 2.6 miles with provisions for fish and wildlife mitigation as necessary. The project under construction is the Locally Preferred Plan (LPP). The non-Federal sponsor is responsible to pay 100 percent of the difference in cost between the LPP and the National Economic Development (NED) plan. (See OTHER INFORMATION)

AUTHORIZATION: Water Resources Development Act of 1986 and Energy and Water Development Appropriations Acts for 1990, 1992 and 2002.

REMAINING BENEFIT-REMAINING COST RATIO: 4.8 to 1 at 8-5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 8-5/8 percent.

INITIAL BENEFIT-COST RATIO: 2.2 to 1 at 8-5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the General Design Memorandum dated December 1991 at October 1991 price levels for the NED project. Current benefits are from the General Reevaluation Report (GRR) dated February 2001 at October 2000 price levels for the NED project. The GRR was approved in November 2001.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$133,000,000
Estimated Non-Federal Cost		101,600,000
Cash Contribution	$ 15,800,000	
Other Costs	95,866,000	
Section 104 Credit	- 5,701,000	
Section 215 Credit	- 4,365,000	
Total Estimated Project Cost		$234,600,000

STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	75	TBD

PHYSICAL DATA

Concrete channel	1,510 Feet
Earth channel	27,055 Feet
Box culverts (Bypass Channel)	2,535 Feet
Concrete gabions & mats	4,655 Feet
Excavated bench	6,250 Feet

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST
Allocations to 30 September 2003	$ 95,173,000	
Conference Allowance for FY 2004	14,000,000	
Allocation for FY 2004	27,319,000 1/	
Allocations through FY 2004	122,492,,000	92
Allocation Requested for FY 2005	6,000,000	97
Balance to Complete after FY 2005	4,508,000	

PHYSICAL DATA (Continued)	
Gabion terraces	4,130 Feet
Recreation trails	17,500 Feet
Recreation riverwalk	13,350 Feet
Concrete retaining wall	1,920 Feet

1/ Reflects $3,098,000 reduction assigned as savings and slippage, $83,000 rescission and $16,500,000 reprogrammed to the project.

JUSTIFICATION: The Guadalupe River drains an area of about 160 square miles and its 100-year flood plain encompasses approximately 7,000 acres, including downtown San Jose, and consists of both residential and light industrial development. The January 2003 population for the city of San Jose was estimated at 925,000. Flood producing storms have occurred fourteen times since 1945, the most recent in March 1995. The storm of record occurred in December 1955, inundating 8,300 acres and causing approximately $1.3 million in damages in the Guadalupe River drainage basin. Damages from a 100-year flood under 1990 conditions and October 1999 prices would be approximately $600 million (Final GRR February 2001). Flooding also occurred in the January 1995 storm (20-year event), where there was minor out-of-bank flooding in Reach 3. During the March 1995 storm (25-year event), there was substantial street flooding caused by out-of-bank flooding in Reach 3 and a lack of storm drain capacity. During both storms, the I-280/Route 87 freeway interchange was partially inundated, resulting in closure of Route 87. It is believed that project improvements at the I-880 bridge prevented extensive bridge foundation erosion. The project will provide 100-year flood protection to downtown San Jose, including approximately 1,020 commercial, industrial, and public structures, 3,270 private residences, four major traffic arteries, and the San Jose International Airport. Average annual benefits at October 2000 price levels are as follows:

Annual Benefits	Amount
Flood Damage Prevention	$22,614,000
Recreation	3,171,000
Total	$25,785,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction of Channel Improvements in Reach 3	$ 5,000,000
Planning, Engineering, and Design	500,000
Construction Management	500,000
Total	$ 6,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 the non-Federal sponsor must comply with the requirements listed below (See OTHER INFORMATION):

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas, which are partially offset by a credit allowed ($5,701,000) for prior work (Section 104 of the WRDA 1986).	$30,032,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	55,768,000	
Pay 5 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	11,430,000	$1,493,000

Requirements of Local Cooperation (Continued)

	Payments During Construction and Reimbursements	Annual Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay the incremental construction costs for the locally preferred plan.	3,770,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	600,000	968,000
Total Non-Federal Costs	$101,600,000	$2,461,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Santa Clara Valley Water District is the local sponsor for both the flood control portion and the recreation portion of this project. The Local Cooperation Agreements (LCA's) for each were executed 30 March 1992. The current non-Federal cost estimate of $101,600,000, which includes a cash contribution of $15,800,000, is an increase of $28,800,000 from the non-Federal cost estimate of $72,800,000 noted in the Local Cooperation Agreement, which included a cash contribution of $12,200,000. This estimate reflects an update of the amendment to the LCA that was executed in April 2002. The sponsor agrees with current costs and continues to be financially able to support the project. The Santa Clara Valley Water District has applied for credit in the amount of $28,400,000 for completed work under Section 104 of WRDA 1986. The Section 104 Credit Evaluation Report recommended $5,701,000 and was reflected in the flood control LCA. Reimbursement of Section 104 credits was initiated in FY 1993 and was completed in FY 1994 after initiation of a majority of the project construction. The Section 215 Agreement, currently estimated at $4,365,000, was approved in June 2000 and was executed in May 2001. The Santa Clara Valley Water District completed the work described in the Agreement in FY 2002.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $133,000,000 is an increase of $4,300,000 from the latest estimate ($128,700,000) presented to Congress (FY 2004). This change includes the following items:

Item	Amount
Post Contract Award and Other Estimating Adjustments	$4,300,000
Total	$4,300,000

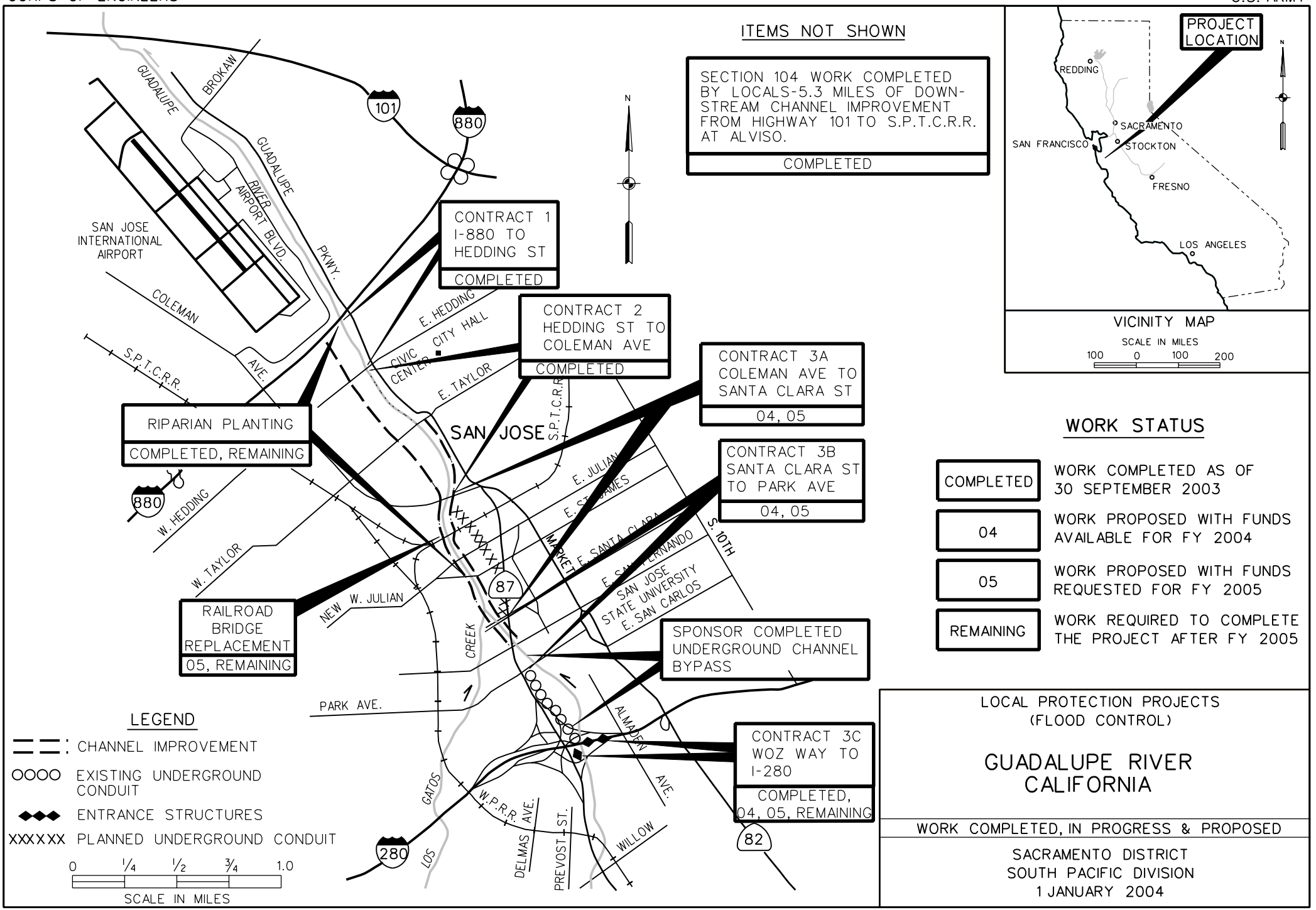
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (FEIS) was filed in October 1986. Environmental Assessments were circulated for public review and comment on the changes to the Feasibility report and FEIS. Results of the review were included in the December 1991 General Design Memorandum (GDM) and the Record of Decision was filed with EPA on 12 February 1992. A Draft Supplemental EIS was submitted in July 2000. The Record of Decision was signed on 16 November 2001. The Final Supplemental EIS supporting the General Reevaluation Report (GRR) was approved on 19 November 2001.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1986 and funds to initiate construction were appropriated in FY 1990.

The Energy and Water Development Appropriations Act, 1990, directed the Secretary to construct the project notwithstanding Section 902 of the Water Resources Development Act of 1986.

The Energy and Water Development Appropriations Act, 1992, directed the Secretary to modify and construct the project in accordance with the December 1991 GDM. While the current plan being implemented differs slightly from the December 1991 GDM Plan, it is consistent with the Guadalupe River Park plan requested by the local sponsor and with cost sharing policy. The Locally Preferred Plan (LPP) is a locally acceptable engineering modification of the authorized plan presented in the July 1985 Feasibility Report/Environmental Impact Statement. It is also the basis for the larger, locally developed, Guadalupe River Park (GRP) Plan. The GRP is a major part of the City of San Jose's current redevelopment plan for the downtown area. The local sponsor, Santa Clara Valley Water District, has agreed to cost share the project in proportion to the National Economic Development Plan (NED), pay all incremental construction costs associated with the LPP, and one-half of the recreation costs.

A General Reevaluation Report (GRR) has been prepared to address impacts to endangered species and water quality. In lieu of widening the natural channel for Reach 3, a bypass channel was recommended to minimize the effects on water quality, endangered species and riparian vegetation. The originally authorized plan could not fully mitigate these impacts. Updated benefits and added costs for required mitigation, lands and relocations were documented in the GRR approved in November 2001. Based on findings of the GRR, Section 106 of the Energy and Water Development Appropriations Act for 2002 re-authorized the project at a total cost of $226,800,000.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2003
04	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
05	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

GUADALUPE RIVER
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2004

06 January 2004
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2 February 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Kaweah River, California (Continuing)

LOCATION: The project is located within the Tulare Lake Basin in the southeastern portion of the San Joaquin Valley between the cities of Fresno and Bakersfield, California.

DESCRIPTION: Lake Kaweah/Terminus Dam was completed in 1962, and has provided limited flood protection to Visalia and other rapidly developing urban areas along the Kaweah River. The project plan is to enlarge Lake Kaweah by 42,600 acre-feet by raising the spillway 21 feet to provide additional flood control and water conservation space.

AUTHORIZATION: Water Resources Development Act of 1996; Energy and Water Development Appropriations Act, 2003, Section 110

REMAINING BENEFIT-REMAINING COST RATIO: 9.1 to 1 at 7-1/8 percent.

TOTAL BENEFIT-COST RATIO: 1.00 to 1 at 7-1/8 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 7-1/8 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation in the Decision Document approved in December 1999 at 1998 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$29,700,000	Entire Project	65	Sep 2005
Estimated Non-Federal Cost		21,200,000			
Cash Contribution	$ 3,350,000				
Other Costs	19,000,000				
Reimbursements	-1,150,000				
Irrigation Water Supply					
Federal LERRDs	-1,150,000				
Total Estimated Project Cost		$50,900,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2003	$17,585,000	
Conference Allowance for FY 2004	8,400,000	
Allocation for FY 2004	6,491,000 1/	
Allocations through FY 2004	24,076,000	81
Allocation Requested for FY 2005	$ 5,624,000	100
Balance to Complete after FY 2005	0	

1/ Reflects $1,859,000 reduction assigned as savings and slippage and $50,000 rescission

PHYSICAL DATA

Spillway: Type – Fusegate,
Install 6 fusegates (230.4 feet wide) along reconstructed spillway.
Crest height - 715 feet
Capacity - Increase by 42,600 to total of 183,300

Downstream and Upstream Mitigation
D/S – 1,218 acres - Levee construction on interior of mitigation site
35 acres – Riparian site
2.1 acres – Endangered Species site
U/S – 3,800 acres - Mitigation of oak woodland and riparian plantings

JUSTIFICATION: The Kaweah River originates in the Sierra Nevada mountains and drains about 560 square miles into Lake Kaweah (Terminus Dam). From Lake Kaweah it passes near the city of Visalia, with a population of about 98,900 (January 2003), as it flows west into the Tulare Lakebed. Terminus Dam was completed in 1962 to provide flood control and irrigation water supply. However, significant flood damages to communities and highly developed agricultural lands along the Kaweah River have continued to occur. Flood releases beyond Terminus Dam capacity have contributed to flood damages to agricultural lands in the Tulare Lakebed. The December 1966 rainflood exceeded the design capacity of Terminus Dam and floodflows passing downstream of the dam resulted in about $1.0 million in damages below the dam, under conditions and prices at that time. These downstream flows peaked at about 5,700 cubic feet per second and inundated about 8,000 acres. The most recent flooding in 1983 caused extensive and widespread damages to properties in the Tulare Lakebed area where losses attributed to the Kaweah River were estimated at $17.6 million. The project includes enlarging Lake Kaweah by 42,600 acre-feet. The average annual benefits at 1998 price levels are as follows:

Annual Benefits	Amount
Flood Control	$3,882,000
Water Supply	251,000
Recreation	(293,000)
Employment	109,000
Advanced Bridge Replacement	7,000
Total	$3,956,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Complete Levee Construction	$ 4,744,000
Planning, Engineering, and Design	500,000
Construction Management	380,000
Total	$ 5,624,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas for flood control.	$ 9,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for the construction of the project for flood control.	9,390,000	
Pay 35 percent of the costs allocated to agricultural water supply ($4,740,000) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of water supply facilities. (Payment includes $300,000 for lands, $310,000 for relocations, and $1,050,000 for cash contribution).	1,660,000	$ 12,800

Requirements of Local Cooperation (Continued)

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	1,150,000	119,500
Total Non-Federal Costs	$21,200,000	$132,300

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board and Kaweah Delta Water Conservation District are the non-Federal sponsors. The Project Cooperation Agreement was executed on 9 February 2001 (See OTHER INFORMATION).

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $29,700,000 is an increase of $1,900,000 from the latest estimate (27,800,000) presented to Congress (FY 2004). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 581,000
Post Contract Award and Other Estimating Adjustments	1,319,000
Total	$1,900,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with Environmental Protection Agency on 11 October 1996. The Record of Decision for the EIS was issued on 19 November 1997. An Environmental Assessment (EA) supporting the Decision Document was approved in April 1998.

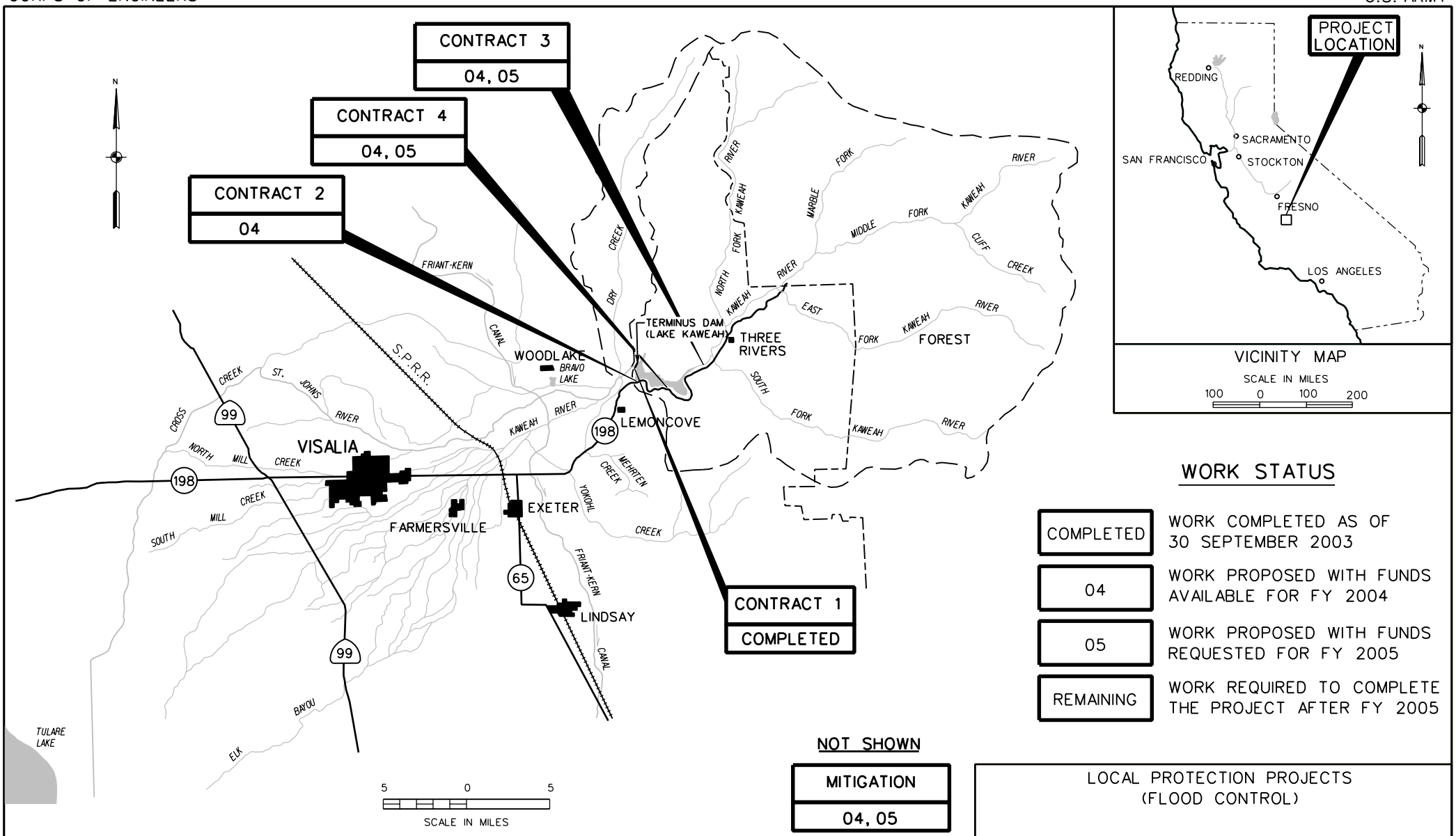
OTHER INFORMATION: Funds to initiate preconstruction engineering and design (PED) were appropriated in FY 1996 and funds to initiate construction were appropriated in FY 2000. During final design, the project's spillway, mitigation areas, and other project features were modified resulting in a cost decrease and an increase in project benefits.

OTHER INFORMATION: (Continued)

These savings have subsequently been offset by higher sponsor costs for lands and relocations and higher costs for removal of 100,000 cubic yards of rock material from the spillway. Despite these cost increases, the local sponsor continues to strongly support the project and is capable of providing additional resources to complete the project.

Section 307 of the Water Resources Development Act of 1999 authorized the Secretary to accept title for lands required for the project and directs the Secretary and the non-Federal interests to enter into an agreement whereby the Corps of Engineers would be reimbursed by the non-Federal interests for costs associated with operations and maintenance.

The fish and wildlife mitigation cost is estimated at $4,150,000.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2003
04	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
05	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005

NOT SHOWN

MITIGATION
04, 05

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

KAWEAH RIVER
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2004

06 January 2004
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APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Marysville/Yuba City Levee Reconstruction, California (Continuing)

LOCATION: The project is located within the boundaries of the Sacramento River Flood Control System in Butte, Sutter and Yuba Counties in north-central California. The area includes the Feather and Yuba Rivers and their tributaries, Sutter Bypass and the cities of Marysville and Yuba City and the communities of Linda and Olivehurst.

DESCRIPTION: An evaluation of about 134 miles of the Sacramento River Flood Control Project levees in the Marysville/Yuba City area identified nearly 30 miles of levees as being structurally deficient. The project consists of reconstructing those levees by installing toe drains, stability berms, and slurry cut-off walls and backfilling a drainage ditch to rectify the deficiency. The project also consists of restoring levee heights and about 76 acres for fish and wildlife mitigation.

AUTHORIZATION: Flood Control Acts of 1917, 1928, and 1941; River and Harbor Act of 1937.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because project construction is substantially complete.

TOTAL BENEFIT-COST RATIO: 4.8 to 1 at 8-3/4 percent.

INITIAL BENEFIT-COST RATIO: 3.2 to 1 at 8-3/4 percent (FY 1993).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the Sacramento River Flood Control System Evaluation - Marysville/Yuba City Area Budget Decision Document dated February 1991 and revised in May 1991 at 1990 price levels. Current benefits are from the Sacramento River Flood Control Project, California, Marysville/Yuba City Area, Design Memorandum dated January 1993, revised April 1993 and approved in May 1994 at 1992 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 37,300,000	Entire Project	90	Sep 2005
Estimated Non-Federal Cost		12,400,000			
Cash Contribution	$ 4,600,000				
Other Costs	7,800,000				
Total Estimated Project Cost		$49,700,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA	
			Levee Reconstruction:	
			Toe Drains	- 7 miles
			Toe Drains and Levee Height Restoration	- 2 miles
Allocations to 30 September 2003	$32,614,000			
Conference Allowance for FY 2004	750,000		Cut-Off Walls	- 9 miles
Allocation for FY 2004	1,000,000 1/		Cut-off Walls and Levee Height Restoration	- 3 miles
Allocations through FY 2004	33,614,000	90		
Allocation Requested for FY 2005	3,686,000	100	Levee Height Restoration	- 4 miles
Programmed Balance to Complete after FY 2005	0		Fish and Wildlife Mitigation	- 76 acres
Unprogrammed Balance to Complete after FY 2005	0		Backfill Drainage Ditch	- 0.9 mile
			Seepage Berm	- 1 mile
			Relief Wells	- 0.8 mile
			Stability Berm	- 0.8 mile

1/ Reflects $166,000 reduction assigned as savings and slippage, $4,000 rescission and $420,000 reprogrammed to the project.

JUSTIFICATION: Levee evaluation studies of approximately 134 miles of project levees were completed in the Marysville and Yuba City area. Results indicated that structural problems caused by ongoing seepage exist on nearly 30 miles of levees with inadequate levee height existing on about 10 miles of those levees. Reconstruction is required to maintain the integrity of the existing Sacramento River Flood Control Project. The project will assure the system continues to function as designed. The levees were locally constructed and incorporated into the project levee system when it was authorized in 1917. High flow conditions during the February 1986 storm event resulted in a levee break on the Yuba River, the evacuation of about 24,000 people and about $95 million in flood damages. Additional flood damages of about $2 million were incurred on the Feather and Bear Rivers and about $1 million in post flood levee repair work was required. Flooding also occurred in 1997. Flooding was caused by a levee break along the Feather River below Marysville/Yuba City in the Linda/Olivehurst area, resulting in three fatalities and a reported $82 million in flood damages. The levee system protects about 100,000 people in the Marysville/Yuba City area. Levee failure would result in significant property damages and potential loss of life. Average annual benefits, all flood control, are estimated at $25,530,000 at October 1992 price levels.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Complete Construction on Contract 2D	$3,200,000
Complete Real Estate Crediting	15,000
Planning, Engineering, and Design	200,000
Construction Management	271,000
Total	$3,686,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 4,979,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	2,821,000	
Pay 9 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	4,600,000	$ 0 1/
Total Non-Federal Costs	$12,400,000	$ 0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

1/ Reconstruction will reduce, not increase, annual operation and maintenance costs. Operation and maintenance costs are included in the original Sacramento River Flood Control Project and are the responsibility of the non-Federal interests.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board is the local sponsor for reconstruction work. A Project Cooperation Agreement (PCA) satisfying the requirements of Section 221, Flood Control Act of 1970 (Public Law 91-611) and consistent with the Water Resources Development Act of 1986 (Public Law 99-662) was signed on 19 July 1994. The current non-Federal cost estimate of $12,400,000, which includes a cash contribution of $4,600,000, is an increase of $4,600,000 from the non-Federal cost estimate of $7,800,000 noted in the Project Cooperation Agreement, which included a cash contribution of $1,820,000. The non-Federal sponsor is financially capable and willing to contribute the non-Federal share.

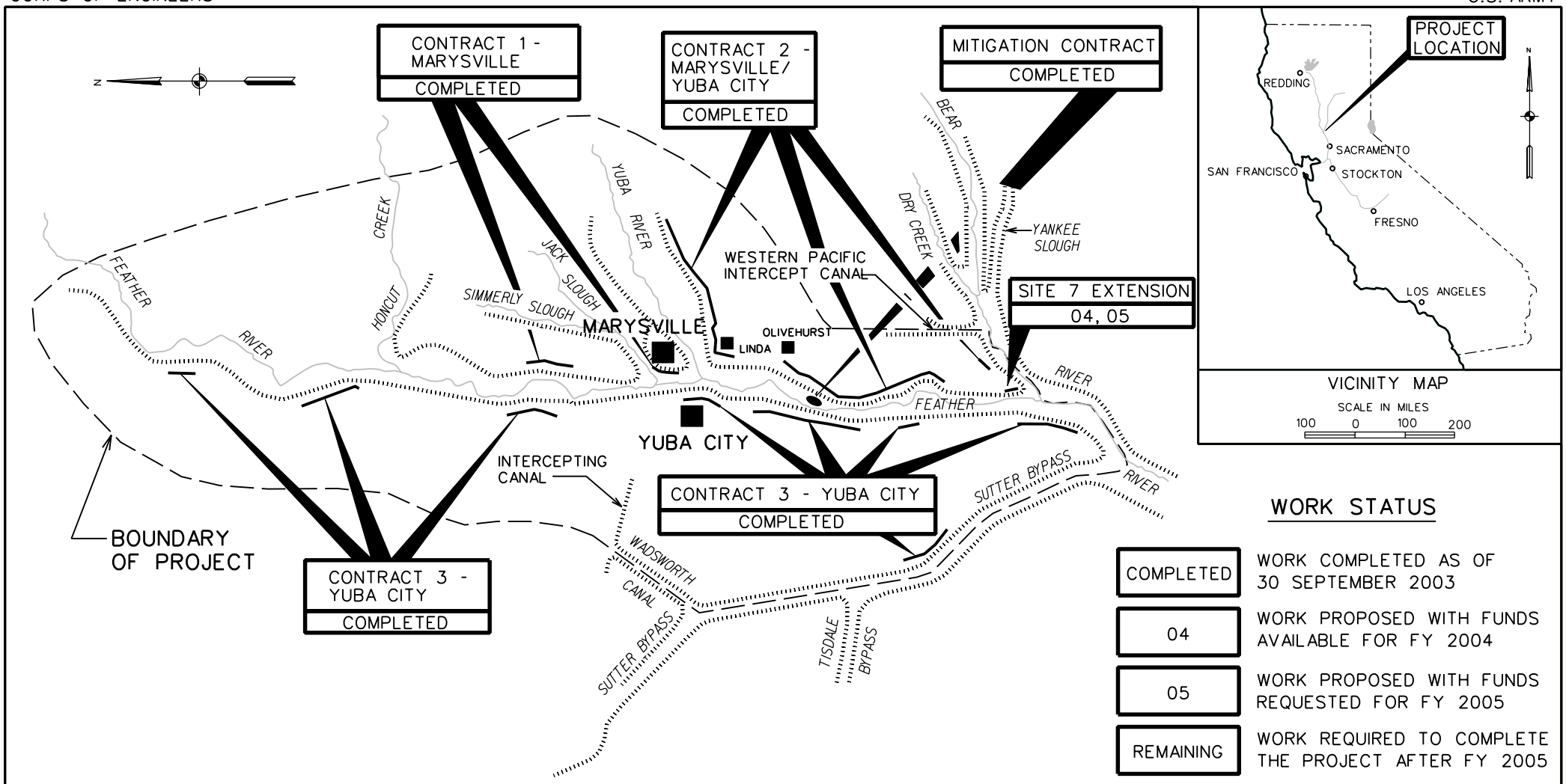
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $37,300,000 is the same as last presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The original Sacramento River Flood Control Project was substantially complete prior to 1970 and an Environmental Impact Statement (EIS) was not prepared. The final Programmatic Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Marysville/Yuba City Area, Mid-Valley area, Lower Sacramento area and Upper Sacramento area, the remaining four phases of the Sacramento River Flood Control System Evaluation, was filed with EPA on 19 June 1992 and the Record of Decision was signed on 4 November 1992. The Programmatic EIS/EIR discusses the environmental impacts resulting from potential work for the entire area in general terms. An Environmental Assessment (EA) was prepared to address the site-specific impacts resulting from the recommended work in the Marysville/Yuba City area in December 1992. A Finding of No Significant Impacts (FONSI) was signed on 28 April 1993.

OTHER INFORMATION: Funds to initiate engineering and design were appropriated in FY 1991 (Sacramento River Flood Control Project, California) and funds to initiate construction were appropriated in FY 1993.

A final Design Memorandum was prepared in January 1993, revised April 1993 and approved in May 1994. In addition to the reconstruction project, the local sponsor is bearing the full cost of local betterments as part of contract 2-Marysville/Yuba City. Based on damages from the January 1997 floods, a Basis of Design Report was prepared to evaluate an extension of Site 7. The report identified work required at Site 7 as 1.8 miles of seepage berm, stability berm, and relief wells. Site 7 extension, Contract 2D, was awarded 3 September 2003.

The fish and wildlife mitigation cost is estimated at $2,316,000.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2003
04	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
05	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005

LEGEND

PROJECT LEVEE

LOCATION OF LEVEE RECONSTRUCTION

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

MARYSVILLE/YUBA CITY LEVEE RECONSTRUCTION CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2004

16 January 2004
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2 February 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Mid-Valley Area Levee Reconstruction, California (Continuing)

LOCATION: The project is located within the boundaries of the Sacramento River Flood Control System in Placer, Solano, Sutter, Yolo and Yuba Counties in north-central California. The area includes the Sacramento and Feather Rivers, Knights Landing Ridge Cut, Sutter and Yolo Bypasses and portions of the Bear River including Yankee Slough, Dry, Cache, Putah Creeks and Natomas Cross Canal. Communities in the area include Knights Landing, Robbins, Davis and Woodland.

DESCRIPTION: An evaluation of about 240 miles of the Sacramento River Flood Control Project levees in the Mid-Valley area identified about 18 miles of levees that are structurally deficient. The project includes reconstructing these levees by installing landside berms with toe drains, relocation of ditches, embankment modifications, slurry cut-off walls, and developing land for fish and wildlife mitigation.

AUTHORIZATION: Flood Control Acts of 1917, 1928, and 1941; River and Harbor Act of 1937.

REMAINING BENEFIT-REMAINING COST RATIO: 2.2 to 1 at 8 percent. (See Other Information)

TOTAL BENEFIT-COST RATIO: 1.2 to 1 at 8 percent. (See Other Information)

INITIAL BENEFIT-COST RATIO: 1.12 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the Sacramento River Flood Control Project, California, Mid-Valley Area, Phase III, Design Memorandum (DM) dated June 1996 and approved in August 1996, at 1995 price levels. Current benefits are from the latest available evaluation contained in the Final Limited Reevaluation Report (LRR) on the Sacramento River Flood Control Project, California, Mid-Valley Area, Phase III, Areas 2, 3 and 4 dated November 2002, October 2001 price levels. The LRR is being revised to reflect design changes and is scheduled for approval in Spring 2004.

SUMMARIZED FINANCIAL DATA

R.D. 1500 (Contracts 1A ,1B, 1C, and 1D)		
Estimated Federal Cost		$ 9,190,000
Estimated Non-Federal Cost		3,072,000
Cash Contribution	$1,462,000	
Other Costs	1,610,000	
Total R.D. 1500 (Contracts 1A, 1B, 1C and 1D)		$12,262,000

	STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
R.D. 1500		100	Dec 2000
Areas 2, 3, and 4		Not Started	TBD
Entire Project		60	TBD

SUMMARIZED FINANCIAL DATA (Continued)

Remaining Areas 2, 3, and 4					
Estimated Federal Cost		$15,910,000		PHYSICAL DATA	
				Levee Reconstruction:	
Estimated Non-Federal Cost		5,228,000		Toe Drains	- 6.9 miles
Cash Contributions	$ 878,000			Cut-Off Walls	- 0.2 miles
Other Costs	4,350,000			Embankment Modifications	-11.2 miles
Total Remaining Areas 2, 3, and 4		$21,138,000		Fish and Wildlife Mitigation	-17.0 acres

Project Summary

Estimated Federal Cost		$25,100,000		
Estimated Non-Federal Cost		8,300,000		
Cash Contributions	$2,340,000			
Other Costs	5,960,000			
			ACCUM PCT OF EST FED COST	
Total Estimated Project Cost		$33,400,000		
Allocations to 30 September 2003		$12,684,000	1/	
Conference Allowance for FY 2004		500,000		
Allocation for FY 2004		390,000	2/	
Allocations through FY 2004		13,074,000		52
Allocation Requested for FY 2005		2,300,000		61
Programmed Balance to Complete after FY 2005		9,726,000		
Unprogrammed Balance to Complete after FY 2005		0		

1/ Funding of $2,517,000 included in the Sacramento River flood Control Project and reallocated to the Mid-Valley Area Levee Reconstruction Project.
2/ Reflects reduction of $111,000 assigned as savings and slippage, $3,000 rescission and $4,000 reprogrammed to the project.

JUSTIFICATION: Levee evaluation studies of approximately 240 miles of project levees have been completed in Placer, Solano, Sutter, Yolo and Yuba Counties. Results indicate that structural problems caused by ongoing seepage and levee subsidence exist. Reconstruction will be required to maintain the integrity of the

JUSTIFICATION (Continued)

existing Sacramento River Flood Control Project and assure the system continues to provide the original design levels of flood protection. The levees were locally constructed and incorporated into the project levee system when it was authorized in 1917. The area has experienced frequent floods, many occurring before streamflow data were recorded. Devastating floods in 1950, 1955, and 1964 caused loss of life and property damage in the area. The winter of 1982-83 has been described as California's wettest winter in more than a century and resulted in a disastrous year of flooding. Of California's 58 counties, 45 were declared national disaster areas including 5 in the Mid-Valley study area. The town of Knights Landing was threatened when water backed up in the Knights Landing Ridge Cut (a bypass channel parallel to the Sacramento River from Knights Landing to Yolo Bypass). The levees in the Knights Landing Ridge Cut area were originally constructed by local landowners and modified by the Corps of Engineers in the 1950's. Between 1956 and 1986, emergency flood repairs (PL 84-99) have been required 4 times on the Knights Landing Ridge Cut levees. Major storms in February 1986 resulted in record floods. Sutter County's Reclamation District (R.D.) 1500 incurred a 500-foot-long slump up to 4 feet deep on the west side of the levee in the Sutter Bypass near Robbins. High flows caused boils and extensive piping damage. During high flows in January and March 1995, considerable seepage and boils developed on the Sacramento River in Sutter and Yolo Counties. During the recent floods of January 1997, seepage and boils were identified on the south levee of the Tisdale Bypass. The levee was stabilized by constructing a stability berm under emergency construction authority. The areas protected by the levees comprise over 100,000 agricultural acres and about 460 structures, primarily residences and farm structures with a population of approximately 1,600. The value of property the project will protect is estimated at $65.3 million (October 2001 prices). The project will restore design level of flood protection. Estimated average annual flood damages are $3.5 million (October 2001 prices). Average annual benefits, all flood control, are estimated at $2.3 million at October 2001 price levels.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Remaining Areas 2, 3 and 4	
Continue Construction Areas 2, 3 and 4	$1,540,000
Continue Mitigation Construction Contracts, Areas 3 and 4	360,000
Continue Certification of Non-Federal Lands	40,000
Planning, Engineering, and Design	200,000
Construction Management	160,000
Total	$2,300,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$5,865,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	95,000	
Pay 7 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	2,340,000	$ 0 2/
Total Non-Federal Costs	$8,300,000	$ 0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

2/ Reconstruction will reduce, not increase, annual operation and maintenance costs. Operation and maintenance costs are included in the original Sacramento River Flood Control Project and are the responsibility of the non-Federal interests.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board will act as the local sponsor for reconstruction work. The Project Cooperation Agreement (PCA) for Reclamation District 1500 (R.D. 1500) (Contracts 1A, 1B, 1C and 1D) was signed on 12 September 1996. The second PCA for remaining construction (areas 2, 3, and 4) was signed 4 April 2000 (see OTHER INFORMATION).

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $25,100,000 is the same as the latest estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The original Sacramento River Flood Control Project was substantially complete prior to the National Environmental Policy Act of 1969. An Environmental Impact Statement (EIS) was not prepared. A Programmatic Environmental Impact Statement/Environmental Impact Report (EIS/EIR) on the levee reconstruction for the Marysville/Yuba City Area, Mid-Valley Area, Lower Sacramento Area and Upper Sacramento Area, the remaining four phases of the Sacramento River Flood Control System Evaluation, was filed with EPA on 19 June 1992 and the Record of Decision was signed 4 November 1992. The Programmatic EIS/EIR discusses the environmental impacts resulting from potential work for the entire area in general terms. An Environmental Assessment/Initial Study on site-specific impacts for recommended work in the Mid-Valley area was prepared and submitted for public review in May 1995. The Finding of No Significant Impacts (FONSI) was signed on 4 March 1996.

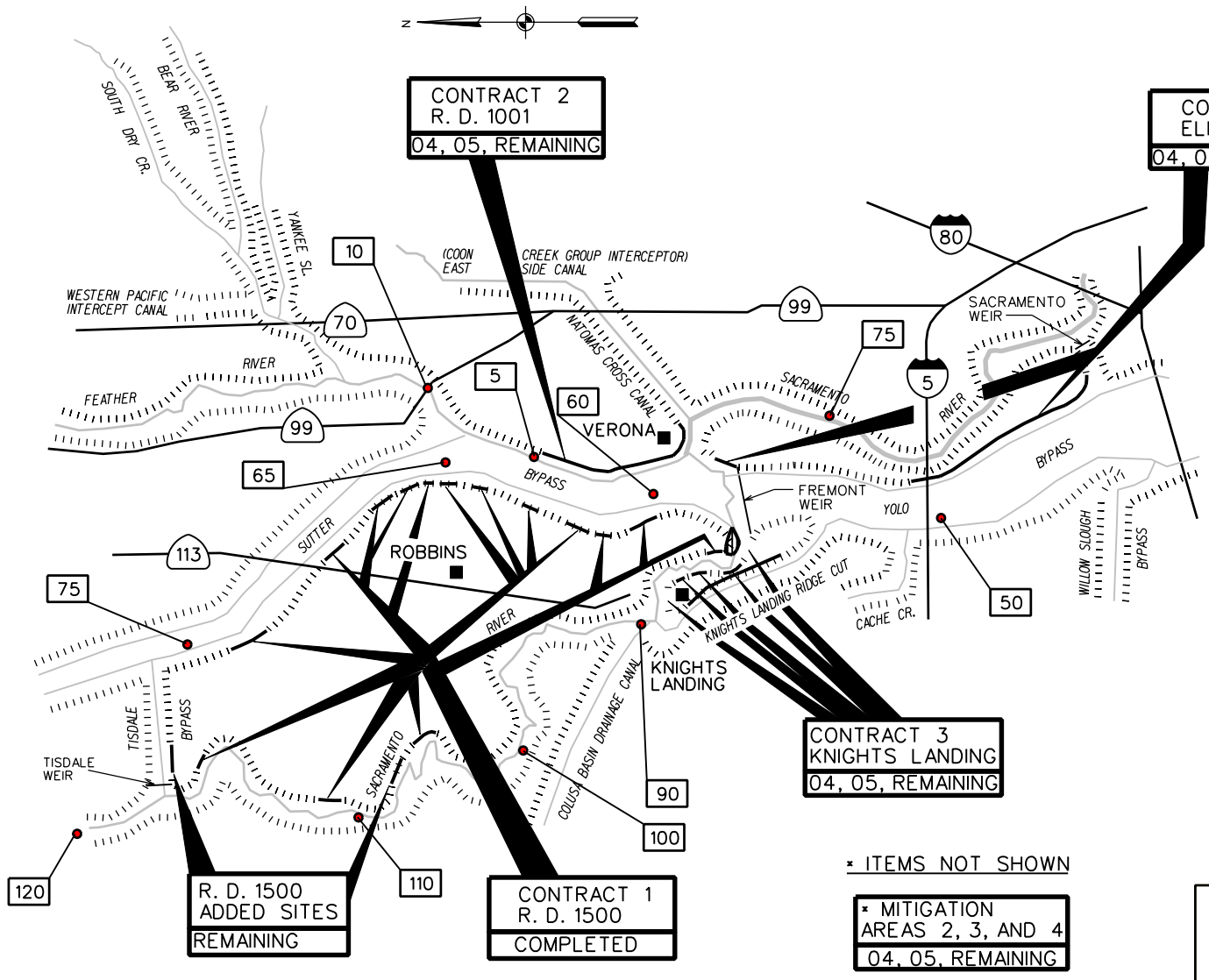
OTHER INFORMATION: Following the record high flows of February 1986, Operations and Maintenance funds were provided under Inspection of Completed Works to perform an evaluation of the integrity of the Sacramento River Flood Control System. A five-phase program which divided the system into five study areas was developed. In each phase, the structural stability of the levees was examined and a determination made as to whether the system was functioning at its design level. The results of each study phase were submitted as an Initial Appraisal Report (IAR). The IAR for the Mid-Valley Area dated December 1991 was approved in October 1992. Funds to initiate engineering and design were appropriated in FY 1993 (Sacramento River Flood Control Project, California). Funds to initiate construction were appropriated in FY 1996. All four areas evaluated in the DM are economically feasible. These areas include R.D. 1500 (Contracts 1A, 1B, 1C and 1D), R.D. 1001 Verona (Area 2), Knights Landing (Area 3), and Elkhorn (Area 4). A LRR was completed in September 1993, approved in March 1994, and revised in May 1995 for the economic analysis for all five phases of the Sacramento River Flood Control System Evaluation.

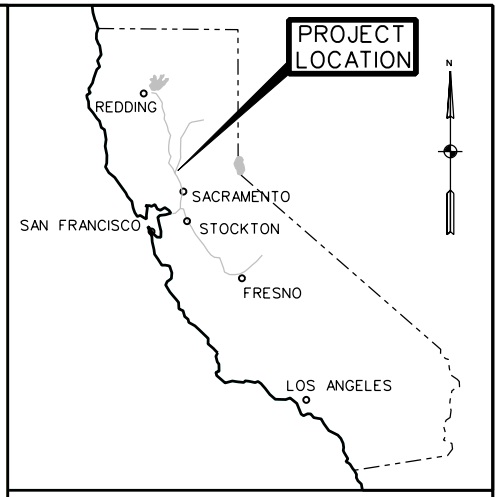
A second LRR was completed in September 2002 on the unconstructed portion (remaining areas 2,3,and 4) of the Sacramento River Flood Control System, Phase III. The LRR is being revised to reflect October 2003 price levels and design changes and is scheduled for approval in Spring 2004. Although costs for area 4 in particular have increased significantly since the 1996 Design Memorandum, all three areas remain economically feasible.

To respond to a request from R.D. 1500 to address the seepage problem for levee reconstruction, a portion of R.D 1500 (Contract 1A) was awarded on 28 September 1996. Construction, involving approximately one mile of landside berm with toe drain and slurry cut-off wall, was initiated in May 1997 and was completed in October 1997. The second portion of R.D. 1500 (Contract 1B) was awarded 18 July 1997 and completed September 1998. Contract 1D was awarded in December 1999 and completed November 2000, and the mitigation Contract 1C was awarded June 2000 and completed October 2000. A second PCA for remaining construction (Areas 2, 3 and 4) was signed 4 April 2000.

Based on damages from the January 1997 floods, a supplemental Design Memorandum is being prepared to evaluate additional sites for reconstruction consideration. Funding available under Public Law 84-99 was used to repair sites specifically damaged by these floods. Additional reconstruction sites have been identified in the Supplemental Design Memorandum, in both areas 1 (R.D. 1500) and in remaining areas 2,3, and 4. The costs and benefits of the additional sites located in areas 2,3, and 4 have been incorporated into the project. Benefits, costs, and schedule for the additional sites in area 1 will be finalized in the LRR, scheduled for completion in the Spring of 2004.

The fish and wildlife mitigation cost is estimated at $808,000.





WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2003
04	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
05	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005

* ITEMS NOT SHOWN

* MITIGATION AREAS 2, 3, AND 4
04, 05, REMAINING

LEGEND

PROJECT LEVEE

LOCATION OF LEVEE RECONSTRUCTION WORK (INCREMENTALLY FEASIBLE)

110 RIVER MILES

5 0 5
SCALE IN MILES

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

MID-VALLEY AREA LEVEE RECONSTRUCTION CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2004

16 January 2004
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2 February 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Napa River, California (Continuing)

LOCATION: The project is located in the city and county of Napa, California. The Napa River drainage basin, comprising 426 square miles, is just north of San Pablo Bay and approximately 40 miles northeast of San Francisco, California.

DESCRIPTION: The project consists of channel modifications to provide the project area with 100-year level of flood protection from Napa River and Napa Creek. Channel modifications include overbank excavation, vertical walls, floodwalls, levees, bridges, pumping stations, and flowage easements. The project also includes recreation trails and incidental ecosystem restoration.

AUTHORIZATION: Flood Control Acts of 1965 and 1976.

REMAINING BENEFIT-REMAINING COST RATIO: 3.2 to 1 at 7-1/8 percent.

TOTAL BENEFIT-COST RATIO: 1.01 to 1 at 7-1/8 percent.

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 7-1/8 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation in the Final Supplemental General Design Memorandum, October 1998, at 1 October 1997 price levels. Incidental ecosystem restoration benefits are excluded in calculating the benefit cost ratios. The Final Supplemental General Design Memorandum was approved in May 1999.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$128,400,000	Entire Project	29	TBD
Estimated Non-Federal Cost		$127,600,000			
Cash Contributions	$ 13,500,000				
Other Costs	136,900,000				
Reimbursements	-22,800,000				
Total Estimated Project Cost		$256,000,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2003	$37,977,000	
Conference Allowance for FY 2004	10,000,000	
Allocation for FY 2004	10,000,000 1/	
Allocations through FY 2004	47,977,000	37
Allocation Requested for FY 2005	7,000,000	43
Balance to Complete after FY 2005	73,423,000	

1/ Reflects reduction of $2,213,000 assigned as savings and slippage, $59,000 rescission and $2,272,000 reprogrammed to the project.

PHYSICAL DATA

Channel Modifications along Napa River from Highway 29 to Trancas Street - 6.9 miles:
- excavation - 1.63 Mil cy
- widening - 16,900 ft
- vertical walls - 1,600 ft
- floodwalls - 13,200 ft
- levees - 9,900 ft
- training dikes - 7,000 ft
- bypass channel - 1,300 ft

Channel Modifications along Napa Creek Main Street to Earl Street - 4,000 ft:
- excavation length - 1,100 ft

Pumping stations 3 each

Bridges
- roadway 6 each
- pedestrian 3 each

Recreation Trails - 19,000 ft

Flowage easement - 418.2 acres

Ecosystem Restoration - 60 acres

JUSTIFICATION: The Napa River Basin, ranging from tidal marshes to mountainous terrain, is subject to severe winter storms and frequent flooding. In the lower reach of the river, flood conditions are aggravated by high tides from San Pablo Bay and local runoff. The population in the city of Napa was approximately 74,700 in January 2003. Many residential, business and industrial buildings are located by the Napa River within the City limits. Excluding public facilities, the present value of damageable property within the project floodplain is over $500 million. Flooding in the Napa area has occurred in 1955, 1958, 1963, 1965, 1986 (flood of record) and 1995. The 1986 flood (estimated to be a 55-year event) resulted in 3 people dead, 27 injured, an estimated $50-$100 million in property damages throughout Napa County, and the evacuation of approximately 3,500 residents. The 1986 flood crested at 30.2 feet. The predicted crest for a 100 year flood is 32 feet. During the January 1995 flood (estimated to be a 50-year event) the Napa River crested at about 27 feet, and during the March 1995 flood the river crested near 31 feet. Although the March 1995 river crest was higher than the 1986 flood, fewer damages were incurred during the 1995 flood due to a rain stoppage three to four hours before the crest arrived, allowing the tributaries to partially subside. The damage assessments for the January and March 1995 floods report property damages of $10 million and $75 million, respectively. The floods resulted in 227 businesses and 843 residences being damaged county-wide. The project will provide 100-year level of flood protection. Average annual benefits (October 1997 price levels) are as follows:

Annual Benefits	Amount
Flood Damage Prevention	$15,453,000
Recreation	310,000
Ecosystem Restoration	3,293,000
Total	$19,056,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Contract 2E	5,000,000
Planning, Engineering, and Design	1,725,000
Construction Management	275,000
Total	$ 7,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 89,311,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	47,589,000	
Pay 5 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	12,740,000	$336,000
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	760,000	41,000
Federal reimbursement to non-Federal sponsor for non-Federal costs allocated to flood control and recreation in excess of Federal costs.	-22,800,000	
Total Non-Federal Costs	$127,600,000	$377,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

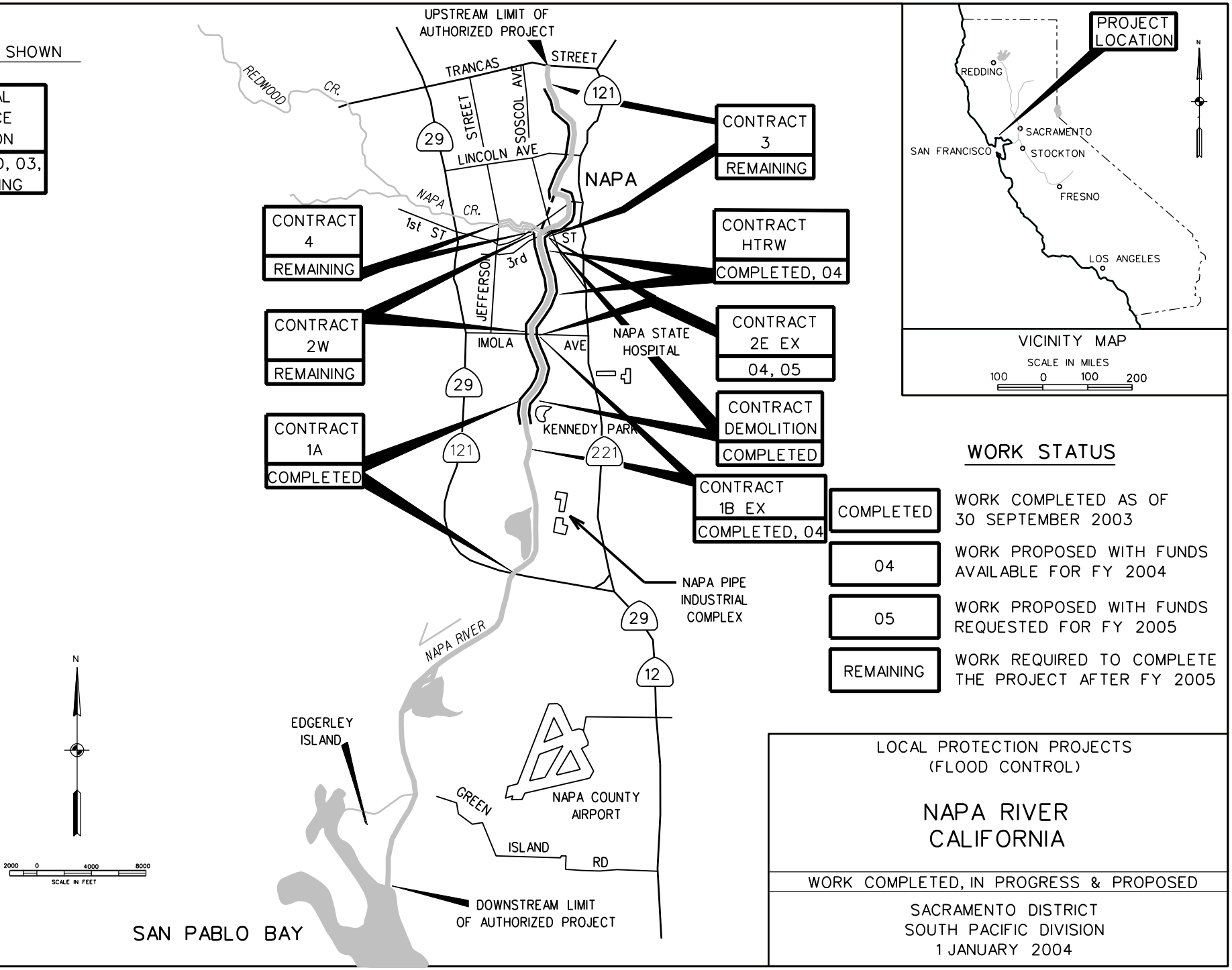
STATUS OF LOCAL COOPERATION: The Napa County Flood Control and Water Conservation District is the local sponsor for both the flood control and recreation purposes of the project. In June 1999, the Napa County Flood Control and Water Conservation District indicated support for the project and intent to cost share both project purposes. In March 1998, the Napa County electorate passed "Measure A" which will fund the non-Federal share of the project. The Project Cooperation Agreement was executed in February 2000. The current non-Federal cost estimate of $127,600,000, which includes a cash contribution of $13,500,000, is an increase of $36,600,000 from the non-Federal cost estimate of $91,000,000 noted in the Project Cooperation Agreement, which includes a cash contribution of $9,345,000. The sponsor agrees with current costs and continues to be financially able to support the project.

A Section 215 Agreement for construction of a portion of the authorized project by the local sponsor was executed on 16 January 2002. It limits Federal credit/reimbursement to no more than $5,000,000, or 1 percent of total project costs, whichever is greater. In FY 2002, the local sponsor completed construction for a total cost of $1.1 million. Initial reimbursement for $500,000 was made 30 September 2003.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $128,400,000 is the same as the latest estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with EPA on 18 December 1997. The Record of Decision was signed on 9 June 1999.

OTHER INFORMATION: Funds to resume preconstruction engineering and design were appropriated in Fiscal Year 1989. Funds to initiate construction were appropriated in Fiscal Year 2000.



06 January 2004
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2 February 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Petaluma River, California (Continuing)

LOCATION: The project is located in the Payran Street neighborhood between Lynch Creek and the railroad bridge south of Lakeville Street, Petaluma, California, approximately 35 miles north of San Francisco.

DESCRIPTION: The project includes an earthen trapezoidal channel starting near Lynch Creek which transitions to a steel sheet-pile U-shaped channel at a point about 200 feet upstream of the Lakeville Bridge. Steel sheet-pile floodwalls extend along both sides of the Petaluma River and along one side of Washington Creek. The project includes a concrete weir, 2 new pump stations, 2 large mitigation sites, and the replacement of 2 vehicular bridges, and 2 railroad bridges. All features of the project have been completed with the exception of two railroad bridge replacements and approximately 200 feet of associated channel widening.

AUTHORIZATION: Water Resources Development Act, 2000 (Section 112)

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable because project is nearing physical completion.

TOTAL BENEFIT - COST RATIO: 0.84 to 1 at 6 5/8 percent

INITIAL BENEFIT - COST RATIO: 1.01 to 1 at 6 5/8 percent

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest economic evaluation included in the Limited Reevaluation Report dated March 2001 at May 2000 price levels.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$ 24,992,000
Estimated Non-Federal Cost		14,668,000
Cash Contribution	$ 8,263,000	
Other Costs	12,685,000	
Reimbursement	-6,280,000	
Total Estimated Project Cost		$ 39,660,000

		ACCUM
		PCT OF EST
		FED COST
Allocations to 30 September 2003	15,609,000	
Conference Allowance for FY 2004	7,300,000	
Allocation for FY 2004	5,699,000 1/	
Allocation through FY 2004	21,308,000	85
Allocation Requested for FY 2005	3,404,000	99
Balance to Complete after FY 2005	0	
Unprogrammed Balance to Complete after FY 2005	280,000	

	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire project		90	Sep 2005

PHYSICAL DATA

1 Concrete Weir
2 pump stations
2 mitigation sites
3600 feet of Channel Improvements:
-earthen trapezoidal channel
-U shaped channel
-sheet-pile floodwalls
-channel widening
4 bridge replacements

1/ Reflects $1,615,000 reduction assigned savings and slippage, $43,000 rescission, and $57,000 reprogrammed to the project.

JUSTIFICATION: In the central residential area of Petaluma, over 600 structures located within the FEMA 100-year floodplain were subject to catastrophic flooding from the Petaluma River in January 1982, at which time $28 million of damages were incurred. The area has flooded 8 times since 1982. Flood depths during the 1982 storm reached 6 feet. Flood crests occur very quickly with little warning. The central residential area was also severely flooded in February 1986. Average annual benefit, all flood control, are estimated at $2,275,000, at May 2000 prices.

FISCAL YEAR 2005: The requested amount of $3,404,000 will be applied as follows:

Complete construction	$2,800,000
Planning, Engineering and Design	200,000
Construction Management	404,000
Total	$3,404,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursement	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$3,802,000	
Modify or relocate utilities, roads, bridges (except railroads bridges), and other facilities, where necessary in the construction of the project.	8,883,000	$85,000
Pay 5 percent of the construction costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities. (Includes $6,280,000 adjustment to be reimbursed to local sponsor).	1,983,000	
Total Non-Federal Costs	$14,668,000	$85,000

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement was originally executed on 5 July 1996 for a Small Flood Control Project (Section 205). It has been amended to reflect the terms of WRDA 2000 (Section 112). The amended Project Cooperation Agreement was executed on 20 August 2001. The sponsor will be eligible for reimbursement due to overpayment of local contributions. Reimbursement is currently estimated at $6,280,000, of which $6,000,000 was reimbursed to the sponsor in Fiscal Year 2002.

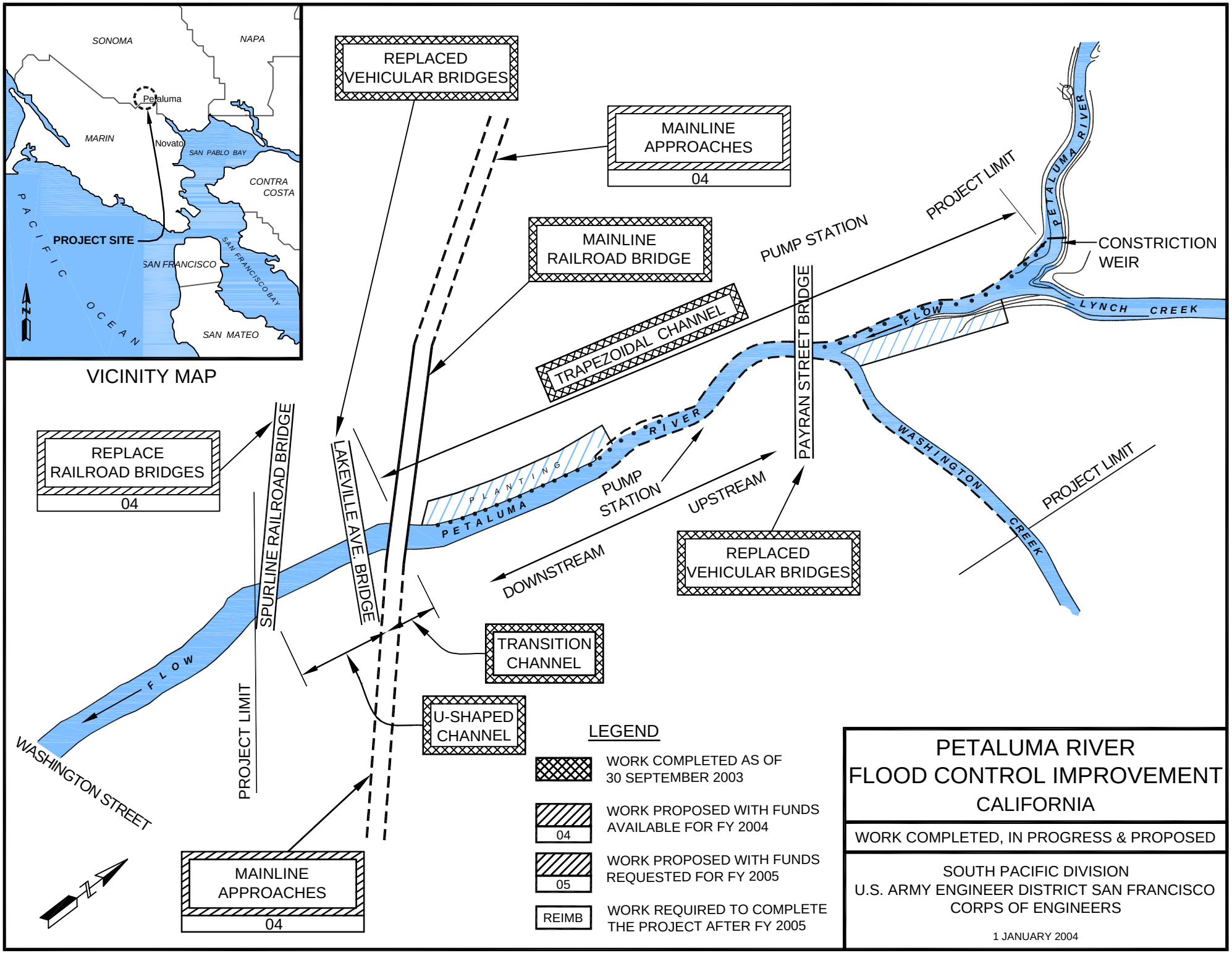
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal estimate of $24,992,000 is an increase of $3,292,000 from the latest estimate ($21,700,000) presented to Congress (FY 2004). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	$100,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	3,192,000
Total	$3,292,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was completed in March 1995, and a Record of Decision was signed on 18 June 1996. In accordance with project Environmental Impact Statement, the Corps has imposed a 16 July – 31 October construction window for any in-channel work to minimize impacts to the Sacramento splittail and the Central California steelhead trout.

OTHER INFORMATION: The Petaluma River Flood Control Project was planned, designed and partially constructed as a Continuing Authorities Program (CAP) project. Total project cost at that time (1996) was $20.3 million. The Federal share was limited to $5 million. Project costs have escalated well beyond CAP cost limits. The project was specifically authorized in the Water Resources Development Act 2000, Section 112. Further, Congressional direction in House Report 106-693 accompanying the Energy and Water Development Appropriations Bill, 2001 provided guidance to the Corps "…to use available funds to continue the project." Federal funds of $3.1 million were reprogrammed to the project in fiscal year 2001. Additional funds were provided to the project in succeeding Energy and Water Development Appropriations Acts.

Approximately $1 million of Federal CAP costs for General Investigations type study activities (reconnaissance and feasibility efforts) are excluded from construction project costs.



U. S. ARMY ENGINEER DISTRICT

CORPS OF ENGINEERS

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Sacramento River Bank Protection Project, California (Continuing)

LOCATION: The project is located in north-central California, along the Sacramento River and its principal tributaries from Sacramento River RM 0.0 at Collinsville to Chico Landing at RM 194. It is within the limits of the existing Sacramento River Flood Control Project levees and includes Butte Basin, Cache Slough, and a portion of the Sacramento-San Joaquin Delta slough. The project meanders through eight counties including Tehama, Glenn, Butte, Colusa, Sutter, Yolo, Solano, and Sacramento.

DESCRIPTION: The project provides a long-range program of bank protection to protect the levees within the limits of the Sacramento River Flood Control Project from erosion. It prevents undermining of levee sections and includes fish and wildlife mitigation features. Some recreational facilities have been provided along the river. Remaining recreation facilities are dependent upon final design and negotiation of cost sharing agreements with the State of California.

AUTHORIZATION: Flood Control Act of 1960; River Basin Monetary Authorization Act of 1974; Further Continuing Appropriations Act of 1983 and Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: The remaining benefit-remaining cost ratio for all project elements is not applicable because monetary benefits have not been quantified. In the reevaluation of project benefits for the Second Phase report, it was determined impractical to assign a monetary value to the benefits which would result from the removal of threats of eventual levee breaks when there are hundreds of vulnerable locations in various states of deterioration. Therefore, a project benefit-cost ratio was not included in the report submitted to the Congress on the advisability for remaining work.

TOTAL BENEFIT-COST RATIO: Not Applicable

INITIAL BENEFIT-COST RATIO: Not Reported

BASIS OF BENEFIT-COST RATIO: Not Applicable

SUMMARIZED FINANCIAL DATA			
Pre-Separable Element Work (Contracts 1-37, 38A and 39)			
Estimated Federal Cost			$54,790,000
Programmed Construction		$54,790,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			$27,218,000
Programmed Construction	$27,218,000		
Cash Contribution	$12,128,000		
Other Costs	15,090,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		$ 0	
Cash Contribution	$ 0		
Other Costs	0		
Total Estimated Programmed Construction Cost			$82,008,000
Total Estimated Unprogrammed Construction Cost			0
Total Pre-Separable Element			$82,008,000
Separable Element 38B			
Estimated Federal Cost			$ 3,088,000
Estimated Non-Federal Cost			$ 1,030,000
Cash Contribution		$ 931,000	
Other Costs		99,000	
Total Separable Element 38B			$ 4,118,000

	STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Bank Protection		94	TBD
Recreation		42	TBD
Entire Project		94	TBD

SUMMARIZED FINANCIAL DATA (Continued)

Separable Element 40			
Estimated Federal Cost			$20,820,000
Programmed Construction		$18,822,000	
Unprogrammed Construction		1,998,000	
Estimated Non-Federal Cost			$ 6,075,000
Programmed Construction		$ 6,000,000	
Cash Contribution	$ 4,629,000		
Other Costs	1,371,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		$ 75,000	
Cash Contribution	$ 0		
Other Costs	75,000		
Total Estimated Programmed Construction Cost			$24,822,000
Total Estimated Unprogrammed Construction Cost			2,073,000
Total Separable Element 40			$26,895,000
Separable Element 41			
Estimated Federal Cost			$15,093,000
Programmed Construction		$ 7,050,000	
Unprogrammed Construction		8,043,000	
Estimated Non-Federal Cost			$ 5,297,000
Programmed Construction		$ 3,048,000	
Cash Contribution	$ 2,032,000		
Other Costs	1,016,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		$ 2,249,000	
Cash Contribution	$ 2,246,000		
Other Costs	3,000		
Total Estimated Programmed Construction Cost			$10,098,000
Total Estimated Unprogrammed Construction Cost			10,292,000
Total Separable Element 41			$20,390,000

SUMMARIZED FINANCIAL DATA (Continued)

Separable Element 42			
Estimated Federal Cost			$57,004,000
Programmed Construction		$57,004,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			$22,532,000
Programmed Construction		$22,532,000	
Cash Contribution	$18,775,000		
Other Costs	3,757,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		$ 0	
Cash Contribution	$ 0		
Other Costs	0		
Total Estimated Programmed Construction Cost			$71,838,000
Total Estimated Unprogrammed Construction Cost			7,698,000
Total Separable Element 42			$79,536,000
Separable Element 43			
Estimated Federal Cost			$26,427,000
Programmed Construction		$14,569,000	
Unprogrammed Construction		11,858,000	
Estimated Non-Federal Cost			$ 6,134,000
Programmed Construction		$ 1,085,000	
Cash Contribution	$ 277,000		
Other Costs	808,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		$ 5,049,000	
Cash Contribution	$ 1,297,000		
Other Costs	3,752,000		
Total Estimated Programmed Construction Cost			$15,654,000
Total Estimated Unprogrammed Construction Cost			16,907,000
Total Separable Element 43			$32,561,000

SUMMARIZED FINANCIAL DATA (Continued)

First Phase - Fish and Wildlife Mitigation			
Estimated Federal Cost			$ 1,348,000
Estimated Non-Federal Cost			774,000
Cash Contribution		$ 74,000	
Other Costs		700,000	
Total First Phase - Fish and Wildlife Mitigation			$ 2,122,000
Third Phase (P,E&D only)			
Estimated Federal Cost			$ 1,330,000
Estimated Non-Federal Cost			440,000
Cash Contribution		$ 440,000	
Other Costs		0	
Total Third Phase (P,E&D only)			$ 1,770,000
Project Summary			
Estimated Federal Cost			$179,900,000
Programmed Construction		$158,001,000	
Unprogrammed Construction		21,899,000	
Estimated Non-Federal Cost			$ 69,500,000
Programmed Construction		$ 62,127,000	
Cash Contribution	$39,286,000		
Other Costs	22,841,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		$ 7,373,000	
Cash Contribution	$ 3,353,000		
Other Costs	4,020,000		
Total Estimated Programmed Construction Cost			$220,128,000
Total Estimated Unprogrammed Construction Cost			29,272,000
Total Estimated Project Cost			$249,400,000

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2003	$119,723,000		Bank Protection: 835,000 lineal feet
Conference Allowance for FY 2004	2,000,000		First Phase – 430,000 lineal feet
Allocation for FY 2004	1,260,000 1/		Second Phase – 405,000 lineal feet
Allocations through FY 2004	120,983,000	67	
Allocation Requested for FY 2005	1,000,000	68	
Programmed Balance to Complete after FY 2005	36,018,000		
Unprogrammed Balance to Complete after FY 2005	21,899,000		

1/ Reflects reduction of $443,000 assigned as savings and slippage, $12,000 rescission and $285,000 reprogrammed from the project.

JUSTIFICATION: The Sacramento River levee system was initiated as a purely local project and in many cases the levees were constructed close to the riverbanks without a protective berm. The levee system, which was adopted as the Sacramento River Flood Control Project in 1917, has been modified and expanded several times since that date but no major change in the basic levee alignment has been made since the original conception of the project. Bank protection is necessary to preserve the Sacramento River Flood Control Project and insure that it will continue to furnish the designed degree of protection. The levees are continuously threatened by erosion, and unless corrective measures are taken levee failures may occur with resultant catastrophic damage and possible loss of many lives. Flood events that occurred in February 1986 greatly emphasized these problems. Several levees located along the Sacramento River were subjected to an extensive amount of erosion due to the extremely high river flows. High flows in January and March 1995 caused flooding and erosion in the Butte Basin area along the Sacramento River, River Mile (RM) 188 at Glenn County Road 29. If levee repairs had not been made, additional flooding would have caused extensive loss of agricultural land and endangered residents in nearby communities of Butte City, Princeton and Colusa. In addition, during moderately high flows in February 1996, a 500 foot portion of berm on the American River failed, threatening the levee protecting the City of Sacramento. A contract was awarded in August 1996 to repair this section and provide bank protection for a total of 1,200 lineal feet. The area protected by the levees comprise over one million acres in which about 50 communities are located; value of improvements (October 2002 prices) to be protected is about $37 billion and about 2.3 million people live within the flood plain. The levee system enables the use of the flood plain for the benefit of the state and nation. The extremely fertile flood plain lands produce about 6.6 percent of the total agricultural production of the state and over 88 percent of the State's rice production. The Sacramento River Bank Protection Project provides a long-range program of bank protection to protect the levees where serious erosion is occurring and to prevent erosion from undermining additional levee sections in the future. In addition to assuring urgently needed flood protection, the project provides recreation facilities consisting of boat-launching facilities, campgrounds, and picnic areas needed along the river to meet a rapidly increasing public demand. Since the initial bank protection contract was let in June 1963, about 788,000 lineal feet of bank protection has been provided. Approximately 47,000 lineal feet of bank protection remains to be placed on the second phase of this project, and the local sponsor supports the addition of a third phase, which will require Congressional authorization.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Separable Element 42

Continue construction of RM 56.7 and 60	$ 460,000
Continue Required Monitoring of Completed Mitigation Contracts	340,000
Planning, Engineering, and Design	160,000
Construction Management	40,000
Total	$1,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 20,712,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	5,959,000	

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation (Continued)		
Pay 15 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to one-third for work initiated prior to 30 April 1986, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	12,650,000	$ 792,000
Pay 18 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent for work initiated after 30 April 1986, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	30,179,000	274,000
Total Non-Federal Costs	$ 69,500,000	$1,066,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: Chapter 2188, Statutes of the State of California, approved by the Governor on 21 July 1961, established the State Reclamation Board as the agency to meet the requirements of local cooperation for the project. Assurances of local cooperation were accepted from the Board 5 February 1963. As of 30 September 2003, the State has expended $50,426,000 for construction of the project. The Reclamation Board signed a Local Cooperation Agreement (LCA) satisfying the requirements of Section 221, Flood Control Act of 1970 (Public Law 91-611) for the remaining Second Phase work in May 1984. In accordance with provisions of the Water Resources Development Act of 1986 for separable project elements initiated after 30 April 1986, new LCAs were executed for separable element 41 on 15 August 1988 and for separable elements 38B, 40, and 42 on 7 December 1988. The LCA for the First Phase Mitigation was signed on 5 June 1990. Execution of a Project Cooperation Agreement for separable element 43, the last separable element in the Second Phase, is unscheduled pending approvals to proceed with more comprehensive evaluations of design alternatives. The current non-Federal cost estimate of $69,500,000 has not changed from the estimate last presented to Congress.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $179,900,000 is the same as the latest estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Environmental Impact Statement (EIS) was filed on 15 June 1973. A SEIS for the Second Phase was filed in February 1989. A final EIS for additional work in Butte Basin, and an update submitted as Supplement 4, were signed in June 1988. An Environmental Assessment/Site Specific Report (EA/SSR) was prepared for Contract 42A and a Finding of No Significant Impacts (FONSI) was signed on 15 February 1994. An EA/SSR was prepared for Contracts Lower American River site 3 and 40D and FONSI's were signed 2 July 1996 and 3 September 1997, respectively. A Supplemental Design Memorandum No. 8 was prepared for sites along the lower American River and the SEIS was completed in April 1998. Currently, an EA/SSR to meet both Federal and State of California requirements is approved prior to construction of each bank protection contract. A General Reevaluation Report (GRR) is being prepared to address remaining sites.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1962, and for construction in FY 1963. Construction of First Phase was completed in November 1974. Authority to proceed with additional bank protection works, Second Phase, was provided by Section 202, River Basin Monetary Authorization Act of 1974, Public Law 93-251. The Further Continuing Appropriations Act of 1983 extended the limits of the project to include bank protection along the Sacramento River to the upstream ends of the project levees to Chico Landing (Butte Basin area). The Water Resources Development Act of 1986 modified the First Phase of the project to include acquisition of lands for establishment and maintenance of wildlife habitat at a total cost of $1,410,000 ($2,122,000 inflated through construction). The last parcel was acquired in Fiscal Year 1997. Re-vegetation has been highly successful and is serving as a model for re-vegetation efforts by others.

The U.S. Fish and Wildlife Service, by letter dated November 7, 1985, issued a Biological Opinion stating that the bank protection work along the Sacramento River from Chico Landing to Red Bluff and in the Butte Basin area would endanger the threatened valley elderberry longhorn beetle. The Service issued a revised opinion on 19 May 1987 that permitted limited rock revetment bank protection to be constructed in the Butte Basin. The potential impact to winter run salmon has also been a significant concern as the winter run salmon have experienced an alarming decline since 1969. National Marine Fisheries Service (NMFS) listed winter run salmon as a threatened species in November 1990. The winter run salmon biological data report was completed January 1991. NMFS Biological Opinion dated 28 October 1991 for the winter run salmon was non-jeopardy but lists recommended conservation measures. Winter run salmon along with bank swallows and Swainson's Hawk are also State listed species and a Biological Opinion was received from California Department of Fish and Game on 18 November 1991 which also recommends conservation measures. By letter dated 16 September 1992, NMFS has requested re-initiation of formal consultation for winter run salmon. Due to these biological opinions, a GRR is being prepared to address remaining sites.

On August 23, 2001, the U.S. Fish and Wildlife Service issued its final Biological Opinion on the Sacramento River Bank Protection Project (SRBPP). The National Marine Fisheries Service released their opinion on September 27, 2001. Both opinions were virtually identical in terms of identifying the SRBPP's effects as jeopardizing the existence of five fish species (Delta smelt, Sacramento splittail, winter-run Chinook salmon, spring-run Chinook salmon, and Central Valley steelhead) listed under the Endangered Species Act in the Sacramento River. The Corps is currently participating in interagency working groups to reconcile needs for continued bank protection with impacts of the Biological Opinions.

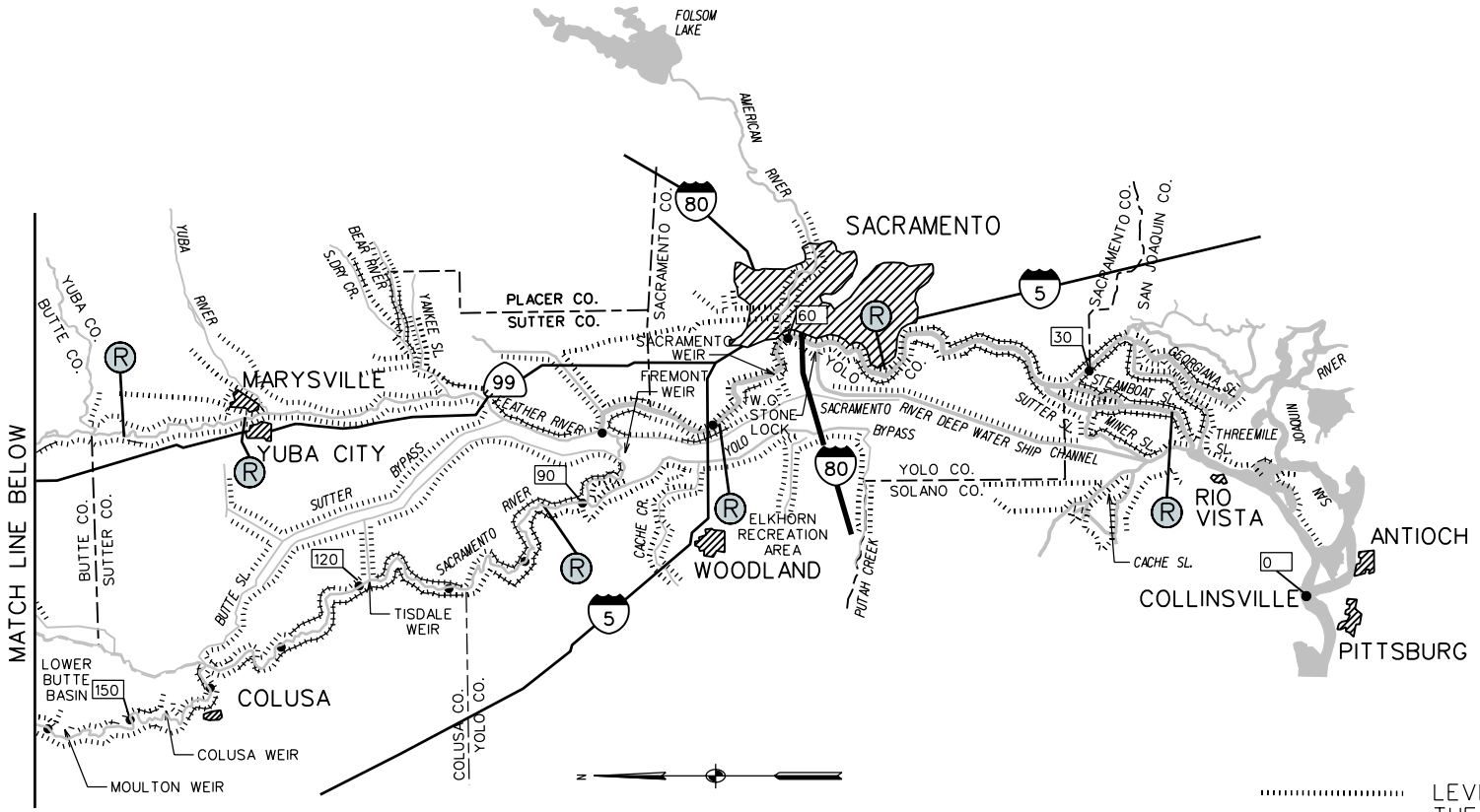
After the February 1986 flood, the Sacramento River System experienced below normal precipitation and flood flows. This led to a lower rate of erosion and a lowered need for expedited bank protection work. However, the storms of January and March 1995 and January 1997 have caused erosion damage and the urgency for bank protection has increased. Additional bank protection placement will be addressed in the GRR.

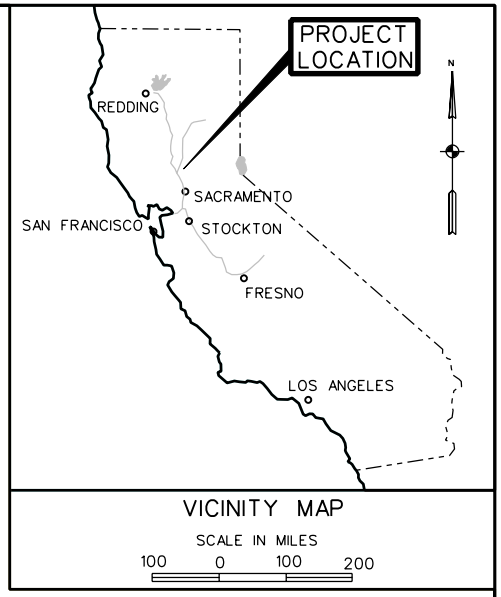
OTHER INFORMATION (Continued)

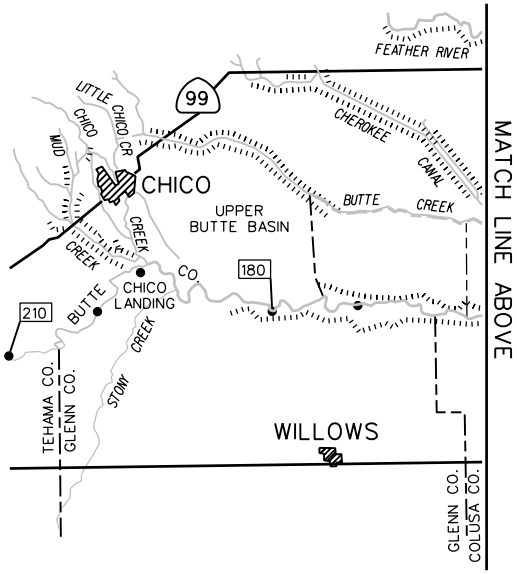
The California Reclamation Board, by letter dated May 11, 1984, requested initiation of a third phase of bank protection. The Board reiterated the critical need for a third phase by letter of September 1, 1988 and stated its willingness and ability to cost-share this phase of the project in accordance with the provisions of the Water Resources Development Act of 1986. Congressional authorization is required to extend the limits of bank protection beyond the current 835,000 lineal feet. Potential proposals for Third Phase bank protection will require a General Reevaluation Report to include a revised project cost estimate. Several sites along the Lower American River within the confines of the Sacramento River Bank Protection Project require bank protection to avoid undermining levees and flood protection in the Sacramento Metropolitan Area. Repair of these sites is the basis for the pre-project condition of the American River Investigation. These sites, totaling approximately 14,000 lineal feet, have been included as part of separable element 42. Lower American River 1A3, Site 3 was completed May 1999. Lower American River 2, Site 5 phase 1 was completed September 1999. Lower American River Sites 2 and 4 and Site 5 phase 2 were completed December 1999. Lower American River Site 5 Phase 3 was awarded in November 2000 and construction was completed in FY 2001. Monitoring will continue three years for plant establishment. Contract 40E, RM 149, was awarded December 2001 and completed November 2002.

A portion of the project has an unprogrammed balance including funds for recreation and separable element 43 pending the outcome of the GRR.

The fish and wildlife mitigation cost is estimated at $26,589,000.







LEGEND

- LEVEE SYSTEM AS CONSTRUCTED BY THE CORPS OF ENGINEERS
- LOCATION OF BANK PROTECTION SITES ACCOMPLISHED UNDER FIRST PHASE OF THE SACRAMENTO RIVER BANK PROTECTION PROJECT
- (R) RECREATION SITE
- [90] RIVER MILES

5 0 5 10 15 20
SCALE IN MILES

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

SACRAMENTO RIVER BANK PROTECTION PROJECT CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2004

06 January 2004
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2 February 2004

COMPLETED WORK

FIRST PHASE, BANK PROTECTION:
CONTRACTS 1 THRU 26 (430,000 LF)

SECOND PHASE PART 1, BANK PROTECTION:
CONTRACTS 27 THRU 36 (182,000 LF)

SECOND PHASE PART II, BANK PROTECTION:
PRE-SEPARABLE ELEMENT (46,744 LF)
37 (RM 0-62)
38A (RM 60-145)
39 (RM 177-194)

SEPARABLE ELEMENT 38B (14,436 LF)
38B (RM 60-120)

SEPARABLE ELEMENT 40 (40,794 LF)
EMERGENCY COUNTY ROAD 29
(RM 186-188)
40A (RM 132-180)
40B-1 (RM 187-192)
40B-M (RM 145-194)
40C (RM 15-25)
STEAMBOAT, MINER & SUTTER SL.
40C-M (RM 15-25)
40D (RM 16, 1R) STEAMBOAT SL.
40D-M (RM SL16.1)
40E (RM 149)

SEPARABLE ELEMENT 41 (29,475 LF)
41A (RM 0-60)
41A-M1 (RM 20-60)
41A-M2 (RM 20-60)
41A-M3 (RM 20-60)
41A-M4 (RM 20-60)
41A-M5 (RM 20-60)
41B (FEATHER RIVER)
41B-M (FEATHER RIVER)

COMPLETED WORK (Cont.)

SECOND PHASE PART II, BANK PROTECTION (CONT.):
SEPARABLE ELEMENT 42 (17,362 LF)
42A (RM 60-145)
42A-M (RM 60-145)
42A-M1 (RM 60-145)
42C (RM 90.4 & 90.9) FISH CURT.
42C-M (RM 90.4 & 90.9) FISH CURT.
42D (RD 108-COLUSA BASIN)
42D-M (RD 108-COLUSA BASIN)
LAR 1A1 (SITE 3)
LAR 1A2 (RM 4.4, SITE 3, RIVER PARK)
LAR 1A2-M (RM 4.4, SITE 3, RIVER PARK)
LAR 1A3-M (RM 4.4, SITE 3, RIVER PARK)
LAR 1B (RM 2-9, SITES 1, 2 & 4)
LAR 1B-M (RM 2-9, SITES 1, 2 & 4)
LAR 2 (SITE 5, PHASE 1)
LAR 2 (SITE 5, PHASE 2)
LAR 2-M (SITE 5, PHASE 3)

WORK PROPOSED WITH FY04 FUNDS

RM 149 MITIGATION
RM 56.7 & 60

WORK PROPOSED WITH FY04, FY05 & REMAINING FUNDS

RM 56.7 & 60

WORK PROPOSED WITH REMAINING FUNDS

40F-M (RM 164)
40I (RM 60.1)
42F-M (RM 85.6, 123.5, 130.0 & 130.8)
40G (RM 26.9, 43.1 & 43.3)
40G-M (RM 26.9, 43.1 & 43.3)
40I-M (RM 60.1)
40_ (RM SL0-62, 145-194)
40_-M (RM SL0-62, 145-194)
42H (RM126)
43_ (RM 0-194)
43_-M (RM 0-194)
LAR 2 (SITE 5, PHASE 4)
LAR 2-M (SITE 5)

WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2003
04	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
05	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

SACRAMENTO RIVER BANK PROTECTION PROJECT CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2004

16 January 2004
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2 February 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Santa Ana River Mainstem, California (Continuing)

LOCATION: The project is located along a 75-miles reach of the Santa Ana River in Orange, Riverside, and San Bernardino Counties southeast of and adjacent to metropolitan Los Angeles, California.

DESCRIPTION: The plan of improvement provides for construction of the Seven Oaks Dam about 35 miles upstream of the existing Prado Dam, with a gross reservoir storage of 145,600 acre feet; flood plain management of the flood overflow area on the Santa Ana River between Seven Oaks Dam and the existing Prado Reservoir; enlargement of Prado Dam to increase the reservoir storage capacity from 217,000 acre-feet to 362,000 acre-feet; construction of 3.3 miles of channel modifications along Oak Street Drain in Corona; enlargement of the existing 2.4 miles of Mill Creek levee; construction of a detention basin and 2.0 miles of channel modifications along the Santiago Creek; and various means of flood control, including flood plain management, levees, and vertical walled concrete channels along the 30.5 miles of the Santa Ana River from Prado Dam to the Pacific Ocean. In addition, the plan includes recreational development and purchase of lands for mitigation and preservation of endangered species. A project for San Timoteo Creek was added to the Santa Ana River Mainstem project by the Energy and Water Development Appropriation Act of 1988. A special report was approved in May 1994; engineering and design was initiated in Fiscal Year 1991 with funds appropriated for that purpose and was completed in June 1994. Construction was initiated in Fiscal Year 1994. The project was modified by the Water Resources Development Act of 1990, which authorized the Secretary to develop recreational trails and facilities on lands between Seven Oaks Dam and Prado Dam, including flood plain management areas. These recreational features are not included in the current estimate pending development of plans and determination of costs.

AUTHORIZATION: Water Resources Development Act of 1986, Energy and Water Development Appropriation Act, 1988, Water Resources Development Act of 1990, and Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 3.5 to 1 at 8-5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.2 to 1 at 8-5/8 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 8-5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio is based on the Phase II General Design Memorandum dated August 1988 at 1987 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$ 1,023,000,000	
Estimated Non-Federal Cost		473,000,000	
Cash Contributions	$ 82,187,000		
Other Costs	390,813,000		
Total Estimated Project Cost		$ 1,496,000,000 1/	
Allocations to 30 September 2003		$ 718,087,000	
Conference Allowance for FY 2004		22,500,000	
Allocation for FY 2004		30,388,000 2/	
Allocations Through FY 2004		748,475,000	73
Allocation Requested for FY 2005		13,200,000	74
Programmed Balance to Complete after FY 2005		261,325,000	
Unprogrammed Balance to Complete after FY 2005		0	

1/ Reflects $4,817,000 reduction in savings and slippage

STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Seven Oaks Dam	100	August 99
Prado Dam	5	To be determined
Santiago Creek	0	To be determined
Mill Creek	100	March 92
Oak Street Drain	100	September 94
Lower Santa Ana River Channel	85	To be determined
Recreation	0	To be determined
San Timoteo	76	To be determined
Entire Project	79	To be determined

1/ Reflects $38,500,000 to be reimbursed to judgment fund for Seven Oaks claim

2/ Reflects $4,979,000 reduction assigned as savings & slippage, $133,000 rescission, and $13,000,000 reprogrammed to the project.

PHYSICAL DATA

SEVEN OAKS DAM:
Dam: Type - Impervious core
Height - 550 feet
Length - Crest Length 2,980 feet
Outlet Works: Gated conduit, 8,000 cfs maximum discharge
Basin Capacity: 145,600 acre-feet
Spillway: Type - Detached overflow, 500 ft wide, unlined
Embankment: Earth and Rockfill
Lands & Damages: Acres - 2,736 existing streambed and undeveloped (mountainous)

MILL CREEK
Levee repair: Type - Grouted riprap
Height - 10 feet maximum
Length - 12,500 feet (2.4 miles) of existing
13,600 feet (2.6 miles

Floodwall (Top of levee): Type – Concrete
Height - 7.5 feet maximum
Length - 12,600 feet (2.4 miles)

OAK STREET DRAIN:
Channel: Rectangular concrete 3.0 mile
Trapezoidal riprap 0.3 mile
Lands & Damages: 34 acres for rights-of-way

SANTIAGO CREEK:
Channel: Rectangular concrete 500 feet
Trapezoidal riprap 2.0 miles
Reservoir: Buttressed
Basin Capacity: Flood control 4,620 acre-feet (el. 274 to 298)
Lands and Damages: 281.5 acres, reservoir and channel

PRADO DAM:
Dam: Type - Impervious core
Height - 134 feet
Length - 3,050 crest length
Embankment: Rolled earthfill
Spillway: Type - Detached, overflow concrete, 1,000 feet wide, 578,000 cfs maximum design discharge.
Basin Capacity: 362,000 acre-feet
Lands & Damages: Acres - 1,661 grazing, wildlife

LOWER SANTA ANA RIVER:
Channel: - 200-450 feet wide, 34 bridges replaced or modified
- 5.0 miles trapezoidal concrete
- 2.4 miles rectangular concrete
- 15.5 miles trapezoidal grouted riprap
- 0.8 miles rectangular concrete/soft bottom

Lands & Damages: Acres - 2,429.5 for channel (7.4 miles floodway)
Mitigation Lands: Acres - 92 marsh restoration

RECREATION FACILITIES:
LOWER SANTA ANA RIVER: Bicycle/equestrian trail - 32 miles

SANTIAGO CREEK: Trails - Bicycle and equestrian (1 mile)
Rest stop - Concrete bicycle wheel stops
SEVEN OAKS TO PRADO DAM: To be developed

SAN TIMOTEO CREEK:
Channel: 5.4 miles trapezoidal concrete
Basins: 18 in-channel and transition chute
Lands & Damages: 60.3 acres for rights-of-way

JUSTIFICATION: Construction of this project will primarily provide protection to lands and improvements within Orange County downstream of Prado Reservoir. A severe flood threat exists in this area, which could cause damages in excess of $15 billion and could endanger and disrupt the lives of over three million people living or working in the floodplain. Damages upstream of Prado Reservoir could exceed $450 million. The overflow area comprises 160 square miles of primarily urban development in 15 cities including San Bernardino, Riverside, Anaheim, Orange, Santa Ana, Fountain Valley, Costa Mesa, Huntington and Newport Beach. The greatest potential damage area is the Orange County floodplain below Prado Dam. The flood of 1938 is the largest that has been recorded since accurate stream gages were placed in the basin. With a peak flow at Riverside Narrows of approximately 100,000 cubic feet per second, the flood covered thousands of acres of then predominantly rural Orange County. Although the area was largely agricultural at the time, the flood caused $4 million in damages ($115.3 million at 2003 prices). Following this storm, Prado Dam was constructed at the head of the Santa Ana Canyon, providing effective control of floods for much of the downstream basin. In 1969, when communities upstream of Prado Dam suffered $85 million in damages, Prado Dam prevented an estimated $525 million in damages to downstream communities. With current development, damages for a similar flood would be approximately $3.6 billion, at 2003 prices. Without the project, the level of protection downstream of Prado, primarily in Orange County, is approximately 70 years. With the project, the level of protection downstream of Prado would be increased to 190 years. Average annual benefits, based on October 1987 price levels are as follows:

Annual Benefits	Amount
Flood Damage Prevention	$ 135,978,000
Recreation	282,000
Total	$ 136,260,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Santa Ana Mainstem:	
Continue Dredging Reach 1	1,000,000
Continue Landscaping Phase IV	200,000
Planning, Engineering & Design	1,100,000
Construction Management	408,000
Prado Dam:	
Continue Construction of Embankment	3,890,000
Continue Construction of Outlet	5,000,000
Planning, Engineering & Design	1,000,000
Construction Management	602,000
Total	$13,200,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the following requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Santa Ana River Mainstem:		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 136,524,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	53,497,000	
Pay 5 percent of total project costs allocated to flood control, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	59,840,000	$ 1,173,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	739,000	6,000

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation Maintenance Repair Rehabilitation and replacement Costs
San Timoteo Creek:		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	7,342,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	4,592,000	
Pay 19 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	466,000	991,000
Prado Dam:		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	170,819,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	18,039,000	
Pay 5 percent of total project costs allocated to flood control, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	21,142,000	200,000
Total Non-Federal Costs	$ 473,000,000	$ 2,370,000

The non-Federal sponsors have also agreed to make all required payments concurrently with project construction

STATUS OF LOCAL COOPERATION: Orange, San Bernardino, and Riverside Counties are the local sponsors. In accordance with Memorandum of Agreement executed on 6 December 1987, Orange County contributed $3 million to assure the project design schedule was maintained. Orange County has received credit for those funds towards their share of the project costs during construction. In addition, Orange County worked with California Department of Transportation (CALTRANS) to relocate some key bridges in Fiscal Year 1988, in advance of project construction. On 14 December 1989, the Local Cooperation Agreement was executed in compliance with the requirements of the Water Resources Development Act of 1986. A supplemental Local Cooperation Agreement was executed on 1 July 1994 for San Timoteo Creek. A draft Local Cost Sharing Agreement for recreation on Santiago Creek has been reviewed and approved by the local sponsor, Orange County, and the Orange County Department of Harbors, Beaches and Parks. Schedules for executing a Project Cooperation Agreement and programming this work are being determined. A Project Cooperation Agreement for Prado Dam was executed in February 2003.

The current non-Federal cost estimate of $473,000,000, which includes a cash contribution of $82,187,000, is an increase of $33,000,000 from the non-Federal cost estimate of $440,000,000 noted in the current amended Local Cooperation Agreement dated August 1999, which included a cash contribution of $57,000,000. Analysis of the non-Federal sponsors' financial capability to participate in the project affirms that Riverside and San Bernardino Counties still have a reasonable and implement able plan for meeting their financial commitments. On 30 June 1997, the Assistant Secretary of the Army (Civil Works) approved Prado Dam as a separable element. On 30 June 1997, direction was given by the Assistant Secretary of the Army (Civil Works) to proceed in accordance with Section 309 (Water Resources Development Act of 1996) to modify the existing Local Cost Sharing Agreement to reflect this determination and the non-Federal cost-sharing be modified in accordance with section 103(a) (3) of Water Resources Development Act of 1996. Construction of this project will primarily provide protection to lands and improvements within Orange County downstream of Prado Reservoir.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $1,023,000,000 is an increase of $3,000,000 from the latest estimate ($1,020,000,000) presented to Congress (FY 2003). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	$ 3,000,000
Total	$ 3,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental protection Agency in June 1989. The Records of Decision (ROD) for Prado Dam and San Timoteo Creek Reach 3B were executed in January 2002.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1979, and funds to initiate construction were appropriated in FY 1990.

Through negotiations with Fish and Wildlife Service on Section 7 consultations for endangered species (Eriastrum below Seven Oaks and least Bell's vireo at Prado Dam), agreement was reached on the number of acres for mitigation. The final biological opinion necessary for formal conclusion of the consultation was received from Fish and Wildlife Service 22 June 1989.

Coordination with the U.S. Fish and Wildlife Service and the California Department of Fish and Game was initiated early in the planning of alternatives and completed 30 March 1989. The coordination produced a Fish and Wildlife Service Coordination Act Report that was included in the Environmental Impact Statement. Numerous coordination meetings were held, and these agencies had a role in the determination of project associated impacts as well as mitigation needs and opportunities. Estimated fish and wildlife mitigation costs for Seven Oaks Dam are $1,362,000 ($1,266,000 Federal and $96,000 non-Federal), for San Timoteo are $2,743,000 ($2,725,000 Federal and $18,000 non-Federal) and for Lower Santa Ana are $6,713,000 ($6,537,000 Federal and $176,000 non-Federal.)

An agreement was signed on 21 September 1989, in accordance with Section 215 of the Flood Control Act of 1968, to permit Orange County to undertake early partial construction of the Santiago Creek improvements in conjunction with other improvements they are planning for water supply, and to be credited for applicable project construction.

Section 104 of the Energy and Water Development Appropriation Act of 1988 authorized "...San Timoteo Creek in the vicinity of Loma Linda for construction as part of the Santa Ana River Mainstem including Santiago Creek Project... the benefits and costs of the San Timoteo project shall be included together with the benefits and costs of the Santa Ana Mainstem including Santiago Creek. The total costs for the Santa Ana Mainstem, including Santiago Creek, is to be raised by $25,000,000." A special report was approved in May 1994; engineering and design was initiated in Fiscal Year 1991 with funds appropriated for that purpose. Construction was initiated in August 1994 with a portion of the $12,000,000 added for that purpose in FY 1994. Additional funds totaling $17,000,000 has been included in Act Language in Fiscal Years 1995, 1996, and 1997 which were used to complete contract for Reach 2 in September 1997. Also, Act Language for Fiscal Years 1998, 2001, 2002 and 2003 has included a cumulative total of $25,000,000. Additional funds were included for San Timoteo in Fiscal Year 2004.

As a result of local sponsor activities to develop a more environmentally sensitive design for Reach 3, such as a soft-bottom channel, the remainder of the project has been redesigned as Reach 3A (extending to just upstream of Barton Road) and Reach 3B (the remainder of the channel and the in-channel debris control structures). The non-Federal Sponsor has agreed to continue with Reach 3A as per the original design. The Reach 2 construction contract is being modified to accomplish this portion of the work. The Corps is working with the local Sponsor to develop alternatives to the approved plan for Reach 3B.

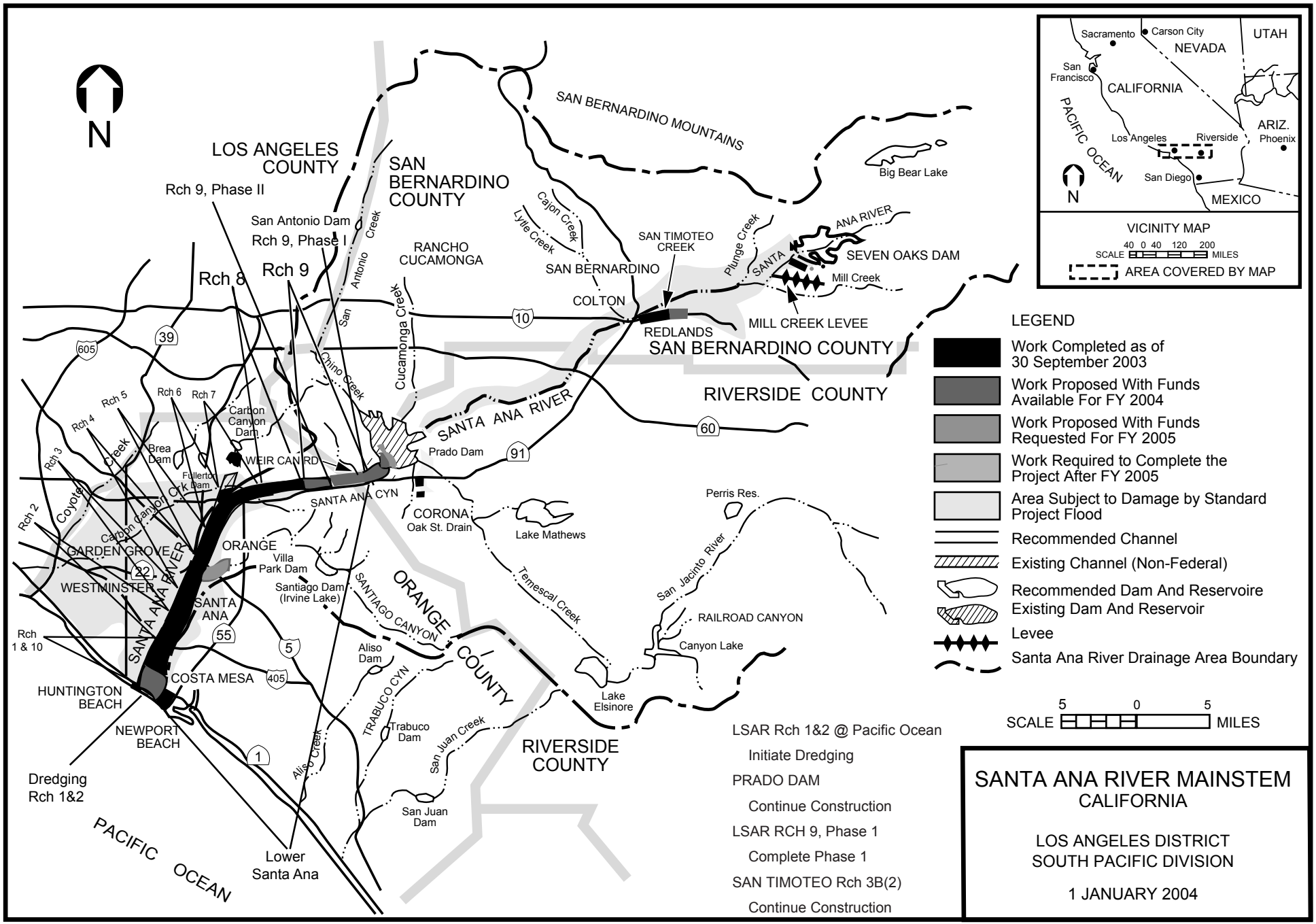
OTHER INFORMATION (Continued)

A soft-bottom channel alternative was previously reviewed by the Corps and found to be technically feasible, but not cost effective. Section 103 (k) of Water Resources Development Act of 1986, authorized reimbursement with interest overtime by the non-Federal sponsor over a period of not more than thirty years from the date of completion of the project. $10.6 million will be reimbursed. A loan agreement was approved in April 2001. Reach 3 will be implemented under this provision. A total of $6 million has been paid in Fiscal Year 2001 and 2003.

The project effort for enlargement of Prado Dam, as a separable element, was approved in June 1997, with direction to modify the Local Cooperation Agreement to reflect this determination. Funds were provided in Fiscal Year 2000 for initiation of Prado Dam.

The project was modified by the Water Resources Development Act of 1990, which authorized the Secretary to develop recreational trails and facilities on lands between Seven Oaks Dam and Prado Dam, including flood plain management areas. These features are not included in the current estimate pending development of plans and determination of costs.

The project was modified by the Water Resources Development Act of 1996, which authorized the Secretary in coordination with the State of California, to provide technical assistance to Orange County, California, in developing appropriate public safety and access improvements associated with that portion of California State Route 71 being relocated for the Prado Dam feature of the project.



SANTA ANA RIVER MAINSTEM
CALIFORNIA

LOS ANGELES DISTRICT
SOUTH PACIFIC DIVISION

1 JANUARY 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: South Sacramento County Streams, California (Continuing)

LOCATION: The South Sacramento County Streams drainage basin lies south and east of the city of Sacramento. Most of the basin is situated in the Sacramento Valley. The eastern-most parts of the basin are in the lower foothills of the Sierra Nevada. A portion of the basin lies within the Sacramento city limits, south of the city center.

DESCRIPTION: The selected plan would include the following principal flood control features: raising and extending the ring levee around the Sacramento Regional Water Treatment Plant (SRWTP); raising the Beach Stone Lakes and Morrison Creek levees; installing floodwalls (using sheet pile) on Morrison Creek, Elder Creek, Florin Creek and Unionhouse Creek, and retrofitting bridges to lower risk of failure due to flooding. Recreation features include a bicycle and pedestrian trail. Restoration of ecosystem at five sites would increase water quality to open water environments and enhance and expand wetlands, riparian vegetation, grasslands, and woodlands.

AUTHORIZATION: Water Resources Development Act of 1999

REMAINING BENEFIT-REMAINING COST RATIO: 4.7 to 1 at 6-5/8 percent.

TOTAL BENEFIT-COST RATIO: 3.9 to 1 at 6-5/8 percent.

INITIAL BENEFIT–COST RATIO: 3.9 to 1 at 6-5/8 percent (FY 2002).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation contained in the Final Feasibility Report dated March 1998 at October 1997 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$47,600,000	Entire Project	1	TBD
Estimated Non-Federal Cost		$25,800,000			
Cash Contribution	$11,050,000				
Other Costs	14,750,000				
Total Estimated Project Cost		$73,400,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2003	$3,166,000	
Conference Allowance for FY 2004	3,500,000	
Allocation for FY 2004	1,300,000 1/	
Allocations through FY 2004	4,466,000	9
Allocation Requested for FY 2005	1,000,000	11
Programmed Balance to Complete after FY 2005	42,134,000	
Unprogrammed Balance to Complete after FY 2005	0	

1/ Reflects $775,000 reduction assigned as savings and slippage, $21,000 rescission and $1,404,000 reprogrammed from the project.

PHYSICAL DATA

Beach Stone Lakes
- Floodwalls: .4 mile
- Levee Raising: 4.0 miles

Levee improvement: 2.0 miles

Morrison Creek
- Levee raising: .6 miles
- Levee improvement: 3.8 miles
- Floodwalls: 3.8 miles

Florin Creek
- Floodwalls: 3.8 miles

Elder Creek
- Levee improvement: 1.0 miles
- Floodwalls: 2.6 miles

Unionhouse Creek
- Levee improvement: .9 miles
- Floodwalls: 2.0 miles

Bridge Retrofits

Ecosystem Restoration: 285 acres of emergent wetlands, riparian woodland, oak savannah woodland, and perennial grasslands.

Recreation features: 4.5 mile paved bicycle and pedestrian trail with signs, fencing, and benches.

JUSTIFICATION: Significant portions of the area were flooded in 1952, 1955, 1962, 1963, 1967, 1969, 1973, 1982, 1986, 1995, and 1997. In January 1995, the most intense rainfall recorded in the watershed resulted in record flows on Morrison Creek, resulting in flows near or exceeding the 1 in 100 annual event. Levee failure along Morrison, Unionhouse, Elder, and Florin Creeks and the SRWTP and Beach Stone Lakes levees could result in flooding of more than 14,000 acres. Approximately 41,000 structures are within the 500-year floodplain with an estimated value of $5.6 billion. Significant development has occurred in the upper basin, in the Elk Grove area, which is increasing the runoff and potential for flooding. The population of the area is over 100,000 and flooding would result in loss of lives, mainly by drowning from rapid inundation in some areas of the flood plain. Once the floodwaters recede, there would be other impacts on public health and safety. The levees along Morrison Creek and tributaries provide less than a 100-year level of flood protection. The selected plan, known as the Consistent High Protection Plan, would provide a high level of protection (1 in 500 annual event) to all index areas, including Morrison, Elder, Florin and Unionhouse Creeks and to the Beach Stone Lakes and SRWTP levees. A 1 in 100 annual event would result in nearly $715 million in damages (existing conditions). The average annual benefits at 1997 price levels are as follows:

JUSTIFICATION (Continued)

Annual Benefits	Amount
Flood Control	$19,855,000
Recreation	121,000
Environmental Restoration	440,000
Total	$20,416,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue construction of floodwalls and levee modifications	$ 400,000
Continue restoration contract	300,000
Planning, Engineering and Design	200,000
Construction Management	100,000
Total	$1,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended by Section 202(a) of the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 3,571,000	$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	11,179,000	345,000
Pay 20 percent of the costs allocated to flood control and environmental restoration to bring the total non-Federal share of flood control and environmental restoration costs to 35 percent as reduced for credit allowed in the amount of $5,910,000 based on prior work (Section 104 of the Water Resources Development Act of 1986), and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control and environmental restoration facilities.	10,350,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	700,000	35,000
Total Non-Federal Costs	$ 25,800,000	$ 380,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The State of California Reclamation Board, in conjunction with the Sacramento Area Flood Control Agency (SAFCA), will act as the non-Federal sponsor for the flood control features of the project. The current non-Federal cost estimate of $25,800,000 includes a cash contribution of $11,050,000. As provided in Section 104 of the Water Resources Development Act of 1986 (PL 99-662), SAFCA applied for credit against their share of the design and construction cost of the project for work carried out after the reconnaissance phase consistent with the ultimately authorized plan. On September 12, 1996, the

STATUS OF LOCAL COOPERATION (Continued)

1996, the Assistant Secretary of the Army (Civil Works) approved potential credit for SAFCA, estimated at $7.1 million. The Section 104 credit estimate was revised to $5,910,000 in the South Sacramento County Streams Addendum to the Feasibility Report dated September 1998. On January 15, 1998, SAFCA passed a resolution adopting the Consistent High Protection Plan as the locally preferred plan and indicated their intent to participate as the non-Federal sponsor. This plan
would provide a consistent level of protection throughout the study area. SAFCA, along with the State of California Reclamation Board, has established a fund to mitigate project-related hydraulic impacts downstream in the Beach Stone Lakes and Point Pleasant areas. This fund would be approximately $2 million and be borne 100 percent by the non-Federal sponsor.

The Project Cooperation Agreement (PCA) for environmental restoration was signed 18 September 2003 and the PCA for flood control is currently scheduled to be signed in April 2004. The sponsor has a reasonable plan for implementation to meet its financial commitment.

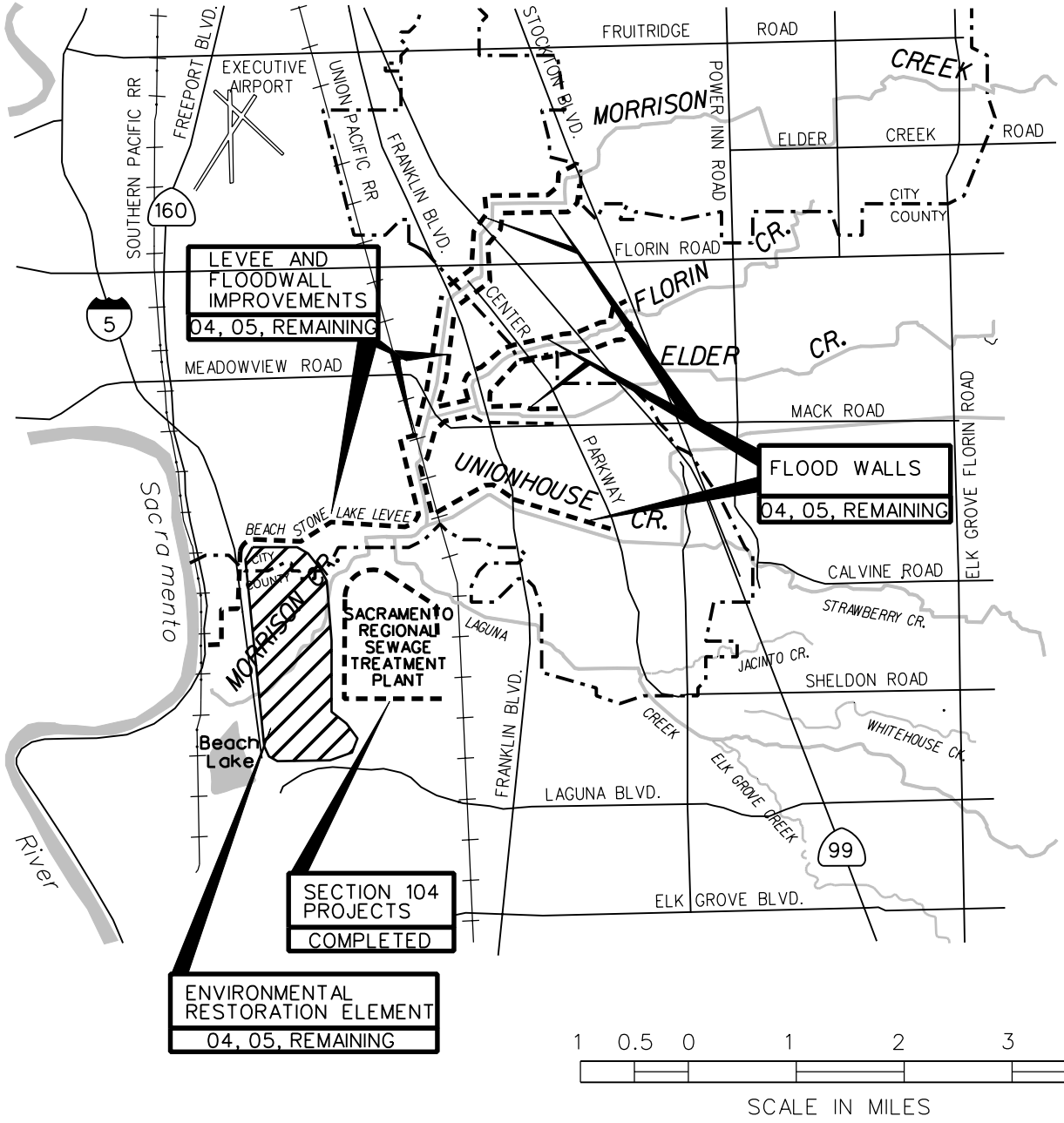
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $47,600,000 is the same as the latest estimate presented to Congress (FY 2004).

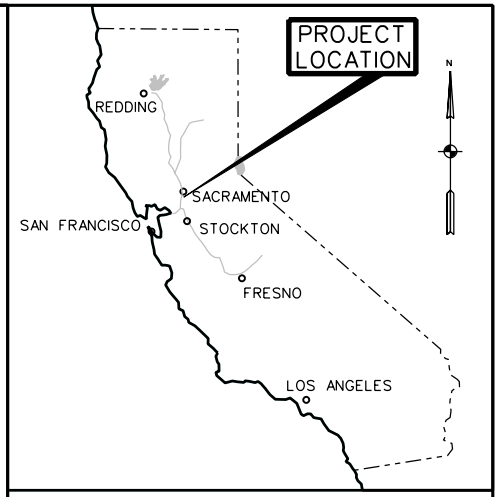
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement/Environmental Impact Report was filed with EPA on 15 May 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1998 and funds to initiate construction were appropriated in FY 2002. . The Local Sponsor is currently reviewing results of recent hydrology reports. If significant redesign is required, authorization to exceed the existing maximum project cost may be necessary.

The restoration contract was awarded in December 2003.

Fish and Wildlife Mitigation costs are currently estimated at $914,000.





WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2003
04	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
05	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

SOUTH SACRAMENTO COUNTY STREAMS CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Tule River, California (Continuing)

LOCATION: The project is located within the Tulare Lake Basin in the southeastern portion of the San Joaquin Valley between the cities of Fresno and Bakersfield, California.

DESCRIPTION: Success Lake Dam was completed in 1961, and has provided limited flood protection to Porterville and other rapidly developing urban areas along the Tule River. The project plan is to enlarge Success Lake by 28,000 acre-feet by raising the spillway 10 feet to provide additional flood control and water conservation space.

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 1.4 to 1 at 6-5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.2 to 1 at 6-5/8 percent.

INITIAL BENEFIT-COST RATIO: 1.2 to 1 at 6-5/8 percent. (FY 2002)

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the Final Feasibility Report dated September 1999 and approved in December 1999 at 1999 price levels. Current benefits are from the Tule River, Success Lake Enlargement Project Reassessment and Economic Update dated September 2002 at October 2002 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$17,000,000	Entire Project	10	TBD
Estimated Non-Federal Cost		8,300,000			
Cash Contribution	$ 1,950,000				
Other Costs	6,350,000				
Total Estimated Project Cost		$25,300,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
			Spillway: Type – Ogee Weir along reconstructed spillway.
Allocations to 30 September 2003	$ 1,640,000		
Conference Allowance for FY 2004	1,850,000		Crest height – 662.5 feet
Allocation for FY 2004	900,000 1/		Capacity - Increase by 28,000 to total
Allocations through FY 2004	2,540,000	15	of 110,300
Allocation Requested for FY 2005	$ 3,500,000	36	Downstream and Upstream Mitigation
Programmed Balance to Complete after FY 2005	$10,960,000		D/S – 247 acres - Levee construction on interior of mitigation site
			82 acres – Riparian forest
			100 plantings of oak trees
			425 acres preservation annual grassland
			150 acres Atriplex grassland

1/ Reflects $410,000 reduction assigned as savings and slippage, $11,000 rescission and $529,000 reprogrammed from the project.

JUSTIFICATION: The Tule River originates in the Sierra Nevada mountains and drains about 393 square miles into Success Lake. From Success Lake it passes near the city of Porterville, with a population of about 41,950 (January 2003), as it flows west into the Tulare Lakebed. Success Dam was completed in 1961 to provide flood control and irrigation water supply. However, significant flood damages to communities and highly developed agricultural lands along the Tule River have continued to occur. Flood releases beyond Success Dam capacity have contributed to flood damages to agricultural lands in the Tulare Lakebed. The December 1966 rainflood exceeded the design capacity of Success Dam and floodflows passing downstream of the dam resulted in about $1.5 million in damages below the dam, under conditions and prices at that time. These downstream flows peaked at about 9,050 cubic feet per second and inundated about 24,800 acres. The flooding in 1978 caused extensive and widespread damages to properties in the Tulare Lakebed area where losses attributed to the Tule River were estimated at $662,500. In 1983 the lake again filled and excess floodflows caused damages of about $360,000 along Tule River. Flood damages further downstream in the Tulare lakebed were extremely severe and widespread and damages attributed to the Tule River were nearly $7.5 million. During this flood, local interests pumped flood releases into the Friant-Kern canal to disperse aqueduct intertie. Had this action not occurred, Tulare lakebed damages would have been greater. The project includes enlarging Success Lake by 28,000 acre-feet. The average annual benefits at 2002 price levels are as follows:

Annual Benefits	Amount
Flood Control	$1,889,000
Water Supply	137,000
Recreation	(31,000)
Employment	64,000
Power	53,000
Total	$2,112,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Spillway Modification Contract	$ 1,000,000
Continue Mitigation Contract	1,500,000
Lands and Damages Certification	50,000
Planning, Engineering, and Design	700,000
Construction Management	250,000
Total	$ 3,500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended by Section 202(a) of the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas for flood control.	$ 3,750,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for the construction of the project for flood control.	2,160,000	
Pay 35 percent of the costs allocated to irrigation water supply ($1,650,000) to bring the total non-Federal share of irrigation water supply costs to 35 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of water supply facilities (payment includes $280,000 for lands, $160,000 for relocations, and $138,000 for cash contribution).	578,000	$ 12,800

Requirements of Local Cooperation (Continued)

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 10 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 35 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	1,790,000	171,200
Pay 1.425 percent of the costs allocated to Dam Safety Assurance Program, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of dam safety facilities.	22,000	0
Total Non-Federal Costs	$ 8,300,000	$184,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

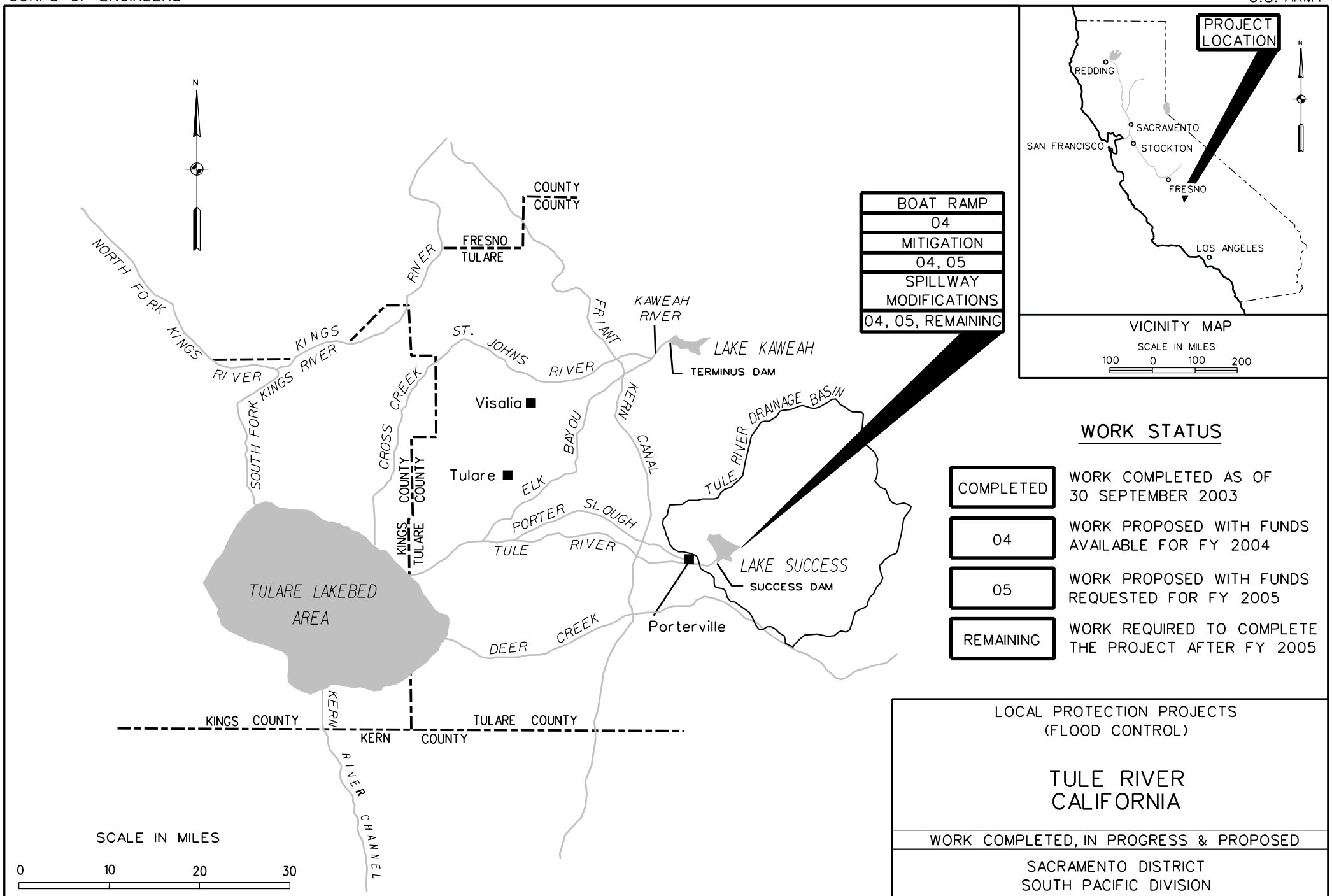
STATUS OF LOCAL COOPERATION: The California State Reclamation Board and the Lower Tule River Irrigation District are the non-Federal sponsors. The Project Cooperation Agreement was signed 20 June 2003.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $17,000,000 is the same as the latest estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (EIS) was filed with Environmental Protection Agency on 15 October 1999.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design (PED) were appropriated in FY 1999 and funds to initiate construction were appropriated in FY 2002. The first construction contract was awarded 11 September 2003.

The fish and wildlife mitigation cost is estimated at $3,090,000.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2003
04	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
05	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

TULE RIVER
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2004

16 January 2004
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2 February 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Upper Sacramento Area Levee Reconstruction, California (Continuing)

LOCATION: The project is located within the boundaries of the Sacramento River Flood Control System in Colusa County in north-central California. The area includes the upper Sacramento River and its tributaries and the city of Colusa.

DESCRIPTION: An evaluation of about 315 miles of the Sacramento River Flood Control Project levees in the Upper Sacramento area identified about 12 miles of levees that are structurally deficient. The project includes reconstructing 3.7 miles of these levees by installing landside seepage/stability berms with toe drains, slurry cut-off walls, and developing land for fish and wildlife mitigation.

AUTHORIZATION: Flood Control Acts of 1917, 1928, and 1941; River and Harbor Act of 1937.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because project construction is nearing completion.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 7 3/4 percent.

INITIAL BENEFIT-COST RATIO: 5.4 to 1 at 7-3/4 percent (FY 1997).

BASIS OF BENEFIT-COST RATIO: Initial benefits were from the Sacramento River Flood Control Project, Upper Sacramento Area, Phase V Design Memorandum dated August 1997. Current benefits are from the latest available evaluation contained in the Limited Reevaluation Report (LRR) for the Sacramento River Flood Control Project, California - Upper Sacramento Area, Phase V dated September 2002 at October 2001 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 7,800,000	Entire Project	40	Dec 2004
Estimated Non-Federal Cost		2,600,000			
Cash Contribution	$ 1,340,000				
Sec. 215 Work	179,000				
Other Costs	1,081,000				
Total Estimated Project Cost		$10,400,000			

SUMMARIZED FINANCIAL DATA (Continued)

			ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2003	$ 3,850,000	1/		
Conference Allowance for FY 2004	1,500,000			Levee Reconstruction: Colusa Area
Allocation for FY 2004	1,550,000	2/		Length - 3.7 miles
Allocations through FY 2004	5,400,000		69	Fish and Wildlife Mitigation – 1.0 miles
Allocation Requested for FY 2005	2,400,000		100	
Programmed Balance to Complete after FY 2005	0			
Unprogrammed Balance to Complete after FY 2005	0			

1/ Funding of $1,287,000 included in the Sacramento River Flood Control Project and reallocated to the Upper Sacramento Area Levee Reconstruction Project.
2/ Reflects $332,000 reduction assigned as savings and slippage, $9,000 rescission and $391,000 reprogrammed to the project.

JUSTIFICATION: Levee evaluation studies of approximately 315 miles of project levees have been completed in Butte, Colusa, Glenn, Sutter, Tehama and Yolo Counties. Results indicate that structural problems caused by ongoing seepage and levee subsidence exist. Reconstruction will be required to maintain the integrity of the existing Sacramento River Flood Control Project and assure the system continues to provide the original design levels of flood protection. The levees were locally constructed and incorporated into the project levee system when it was authorized in 1917. Prior to flood control, the Colusa and Sutter Basins were flooded and acted as storage areas whenever high water occurred. During the floods of 1907 and 1909, the entire Sutter and Colusa Basins were under water. The old town of Colusa is elevated and was not inundated in the 1907 flood but was surrounded by floodwaters. The winter of 1982-83 has been described as California's wettest winter in more than a century and resulted in a disastrous year of flooding. Of California's 58 counties, 45 were declared national disaster areas including six in the Upper Sacramento area. During the 1986 flood, a number of sites in the Colusa area exhibited seepage, one site had water within one foot of the levee crown and another site had seepage at a levee setback which has been riprapped three times due to erosion. During high flows in January and March 1995, considerable seepage and boils developed on the Sacramento River in Colusa County. If a levee break occurred at the west end of the site, adjacent to the City of Colusa, floodwaters would inundate much of the town, especially newly constructed areas east and south of the old town. During the recent floods of January 1997, high water in the Sutter Bypass caused a levee break threatening the town of Meridian in Sutter County. Locals placed visqueen with sandbags to protect the levee from erosion. A ring levee was constructed around the town of Meridian under emergency construction authority. The areas protected by the levees comprise over 70,000 acres, mostly agriculture, and about 2,600 structures, primarily residential and commercial, with a population of about 5,600. The project will restore design level of flood protection. The value of property the project will protect is estimated at $364 million. Estimated average annual flood damages are $2.6 million. Average annual benefits, all flood control, are estimated at $1,300,000 at October 2001 price levels.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Complete Crediting of non-Federal Lands	$ 15,000
Complete Levee Reconstruction Contract	2,100,000
Complete Mitigation Contract	25,000
Planning, Engineering, and Design	60,000
Construction Management	200,000
Total	$2,400,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs	
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 992,000		
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	89,000		
Pay 15 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsor's ability to pay, as reduced for credit allowed based on prior year work ($179,000 credit under Section 215 of the Flood Control Act of 1968), and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	1,519,000	$ 0	3/
Total Non-Federal Costs	$ 2,600,000	$ 0	

3/ Reconstruction will reduce, not increase, annual operation and maintenance costs. Operation and maintenance costs are included in original Sacramento River Flood Control Project and are the responsibility of the non-Federal interests.

NON FEDERAL COST (Continued)

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board will act as the local sponsor for reconstruction work. A Project Cooperation Agreement was signed on 17 March 2000.

A Section 215 Agreement for construction of a portion of the authorized project by the local sponsor was executed on 22 September 1997 and limits Federal credit/reimbursement to no more than $5,000,000, or 1 percent of total project costs, whichever is greater. In FY 1998 the local sponsor completed construction of 1,000 lineal feet of stability berm for the west bank levee along the Sacramento River including construction of a toe drain (Site E) for a total cost of $179,000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $7,800,000 is the same as the latest estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The original Sacramento River Flood Control Project was substantially complete prior to the National Environmental Policy Act of 1969. An Environmental Impact Statement (EIS) was not prepared. A Programmatic Environmental Impact Statement/Environmental Impact Report (EIS/EIR) on the levee reconstruction for the Marysville/Yuba City Area, Mid-Valley Area, Lower Sacramento Area and Upper Sacramento Area, the remaining four phases of the Sacramento River Flood Control System Evaluation, was filed with EPA on 19 June 1992 and the Record of Decision was signed 4 November 1992. The Programmatic EIS/EIR discusses the environmental impacts resulting from potential work for the entire area in general terms. The Finding of No Significant Impacts (FONSI) was signed on 8 May 1997.

OTHER INFORMATION: Following the record high flows of February 1986, Operations and Maintenance funds were provided under Inspection of Completed Works to perform an evaluation of the integrity of the Sacramento River Flood Control System. A five-phase program which divided the system into five study areas was developed. In each phase, the structural stability of the levees was examined and a determination made as to whether the system was functioning at its design level. The results of each study phase were submitted as an Initial Appraisal Report (IAR).

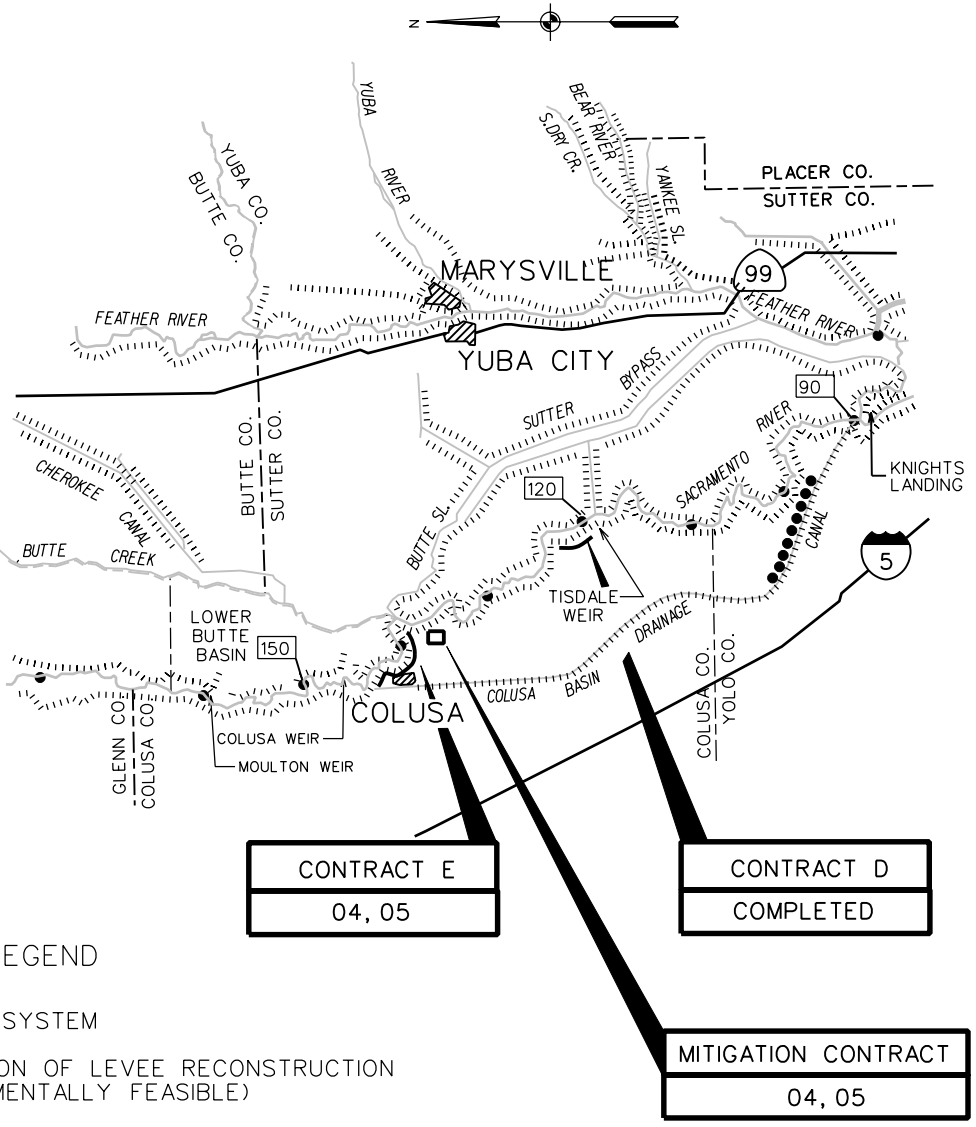
The IAR for the Upper Sacramento Area dated May 1995 was approved in August 1995. Engineering and design was initiated in FY 1996 (Sacramento River Flood Control Project, California). Funds to initiate construction were appropriated in FY 1997. Of the three deficient areas evaluated in the IAR, one is economically feasible based on an incremental analysis. This area includes two sites (D and E) in the Colusa area at Sacramento River Mile 119.1 to 119.6 right bank and 140.0 to 143.17 right bank. The local sponsor contends that economic justification should be based on a system evaluation which would compare total cost of all required levee reconstruction of the Sacramento River Flood Control Project and total benefits attributable to that work. The rationale is based on the fact that the Operations and Maintenance procedures were formulated for the system to function as a whole. A Limited Reevaluation Report (LRR) was completed in September 1993, approved in March l994, and revised in May 1995 for the economic analysis for all five phases of the Sacramento River Flood Control System Evaluation. A second LRR was completed and approved in September 2002 with economic analysis of the Upper Sacramento Area of the Sacramento River Flood Control System (Phase V). The Colusa area remains economically feasible.

Based on damages from the January 1997 floods, a supplemental Design Memorandum is being prepared to evaluate additional sites for reconstruction consideration. Funding available under Public Law 84-99 was used to repair sites specifically damaged by these floods. If additional reconstruction sites are identified in a supplemental Design Memorandum, project cost will increase and completion schedules will be extended.

OTHER INFORMATION (Continued)

The fish and wildlife mitigation cost is estimated at $173,000.

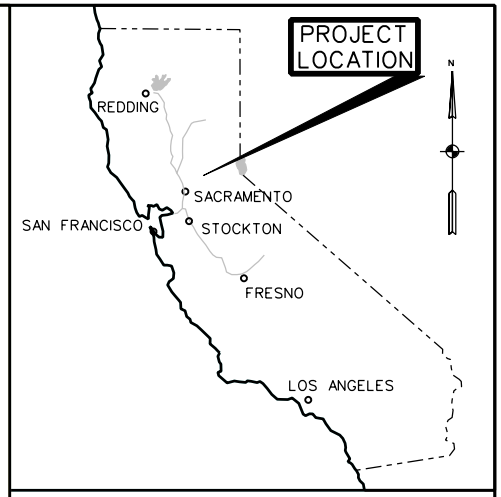
The first levee reconstruction contract, Site D, was awarded in September 2002. A second contract for the 1st Phase of reconstruction at Site E was awarded in September 2003. The remaining levee reconstruction and mitigation contracts are scheduled to award in the Summer of FY 2004.



LEGEND

- LEVEE SYSTEM
- LOCATION OF LEVEE RECONSTRUCTION (INCREMENTALLY FEASIBLE)
- LOCATION OF LEVEE RECONSTRUCTION (INCREMENTALLY INFEASIBLE)
- 90 RIVER MILES

5 0 5 10 15 20
SCALE IN MILES



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2003
04	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
05	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

UPPER SACRAMENTO AREA - PH V LEVEE RECONSTRUCTION CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Tropicana and Flamingo Washes, Nevada (Continuing)

LOCATION: The project area is located west of and through the urbanized Las Vegas area along both Tropicana and Flamingo Washes in Clark County, southern Nevada. The washes emanate from the surrounding mountains and flow eastward through the developed rural and urban downtown areas to the confluence with Las Vegas Wash.

DESCRIPTION: The recommended plan will provide urban flood reduction, erosion control and wildlife enhancement for portions of Las Vegas and the surrounding areas to the west and southwest, including the rapidly developing alluvial fan immediately west of Las Vegas. The plan recommends construction of three debris basins, three detention basins, modifications to two existing detention basins, 28 miles of channels connecting these project elements, environmental mitigation, and recreation facilities. This system of basins will accept the flows from the primary channels, collect and detain them, and then release them at non-damaging rates of flow from Tropicana Detention Basin. A system of three debris basins will trap large bedloads and prevent erosion damage to the project. Environmental mitigation features include compensation for disturbance to the threatened desert tortoise and other impacted significant terrestrial resources. Recreation facilities will include hiking, bicycle and equestrian trails, and picnic areas around the detention basins.

AUTHORIZATION: Section 101(13) of the Water Resources Development Act of 1992, Section 211(f)(5) of the Water Resources Development Act of 1996, Section 370 of the Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 5.3 to 1 at 8-1/2 percent.

TOTAL BENEFIT-COST RATIO: 1.06 to 1 at 8-1/2 percent.

INITIAL BENEFIT-COST RATIO: 1.2 to 1 at 8-1/2 percent (FY 1994).

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio is based on the Chief of Engineers' Report dated January 1992, at 1991 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$ 231,900,000	
Estimated Non-Federal Cost		80,100,000 1/	
Cash Contributions	$ 36,719,000		
Other Costs	43,381,000		
Total Estimated Project Cost		$ 312,000,000	
Allocations to 30 September 2003		$ 173,403,000	
Conference Allowance for FY 2004		26,300,000	
Allocation for FY 2004		20,323,000 2/	
Allocations through FY 2004		193,726,000	84
Allocation Requested for FY 2005		8,475,000	87
Balance to Complete after FY 2005		29,699,000	

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Channels	81	TBD
Detention Basins	75	TBD
Debris Basins	51	Sep 2004
Recreation Facilities	0	TBD
Mitigation	100	Sep 1995
Entire Project	79	TBD

1/ Excludes the cost of the lateral collector system. (See STATUS OF LOCAL COOPERATION.)

2/ Reflects $5,821,000 reduction assigned as savings & slippage, and $156,000 reduction assigned as rescission.

PHYSICAL DATA

PRIMARY CHANNELS (Trapezoidal concrete)

RED ROCK CHANNELS:

LOWER RED ROCK CHANNEL COMPLEX
Length: 0.5 mile
Base Width: 10-20 feet
Depth: 15 feet
Depth: 10 feet

UPPER RED ROCK CHANNEL
Length: 0.4 mile
Base Width: 5-10 feet
Depth: 10 feet

RED ROCK BELTWAY CHANNELS
Segment 8
Length: 1 mile
Base Width: 10-20 feet

Segment 9
Length: 1.9 miles
Base Width: 5-15 feet

Segment 10A
Length: 2.7 miles
Base Width: 5-15 feet
Depth: 10 feet

PHYSICAL DATA (Continued)

BLUE DIAMOND CHANNELS:

LOWER BLUE DIAMOND CHANNEL
Length: 1.5 miles
Base Width: 10-20 feet
Depth: 15 feet

BLUE DIAMOND BELTWAY CHANNEL
Segment 7A
Length: 2 miles
Base Width: 5-15 feet
Depth: 10 feet

Segment 7B
Length: 1.6 miles
Base Width: 10-20 feet
Depth: 15 feet

UPPER BLUE DIAMOND CHANNEL
Length: 2.9 miles
Base Width: 5-15 feet
Depth: 10 feet

F-1 DEBRIS BASIN
Type: Basin/earthfill embankment combination, with dumpstone-revetted embankment
Maximum Height: 30 feet
Length: 700 feet
Basin Capacity: 75 acre-feet

F-2 DEBRIS BASIN
Type: Basin/earthfill embankment combination, with dumpstone-revetted embankment
Maximum Height: 35 feet
Basin Capacity: 17 acre-feet

FLAMINGO DIVERSION CHANNELS:

LOWER FLAMINGO CHANNEL
Length: 1.6 miles
Base Width: 9-25 feet
Depth: 7-21 feet

UPPER FLAMINGO CHANNEL
Length: 2.1 miles
Base Width: 13-29.5 feet
Depth: 7-13.7 feet

TROPICANA OUTLET CHANNEL:
Length: 1.5 miles
Base Width: 5 feet
Depth: 10 feet

R-4, F-1, F-2 AND F-4 CHANNELS:
Length: 8.9 miles (total)
R-4: 1.6 miles F-2: 1 miles
F-1: 3.1 miles F-4: 3.2 miles
Base Width: 5 feet Depth: 10 feet

DEBRIS BASINS
F-4 DEBRIS BASIN
Type: Basin/earthfill embankment combination, with dumpstone-revetted embankment
Maximum Height: 25 feet
Basin Capacity: 20 acre-feet

PHYSICAL DATA (Continued)

RED ROCK DETENTION BASIN MODIFICATION
Type: Compacted earthfill embankment
Maximum Height: 60 feet
Length: 4,000 feet
Spillway Length: 940 feet (600 existing, 340 auxiliary)
Basin Capacity: 2,162 acre-feet

FLAMINGO DETENTION BASIN MODIFICATION
Type: Compacted earthfill embankment
Maximum Height: 38 feet
Length: 4,800 feet
Spillway Length: 180-foot-wide labyrinth
Spillway Elevation: 2470.5 feet NGVD
Basin Capacity: 1,706 acre-feet

BLUE DIAMOND DETENTION BASIN
Type: Roller compacted concrete
Maximum Height: 49 feet
Outlet Discharge: 180 cfs
Length: 6,524 feet
Crest Elevation: 2,869 feet NGVD
Basin Capacity: 2,224 acre-feet

RECREATION FACILITIES
Picnic areas around detention basins
Trails: Hiking, bicycle and equestrian

DETENTION BASINS

R-4 DETENTION BASIN
Type: Compacted earthfill embankment
Maximum Height: 38 feet
Length: 2,000 feet
Outlet discharge: 360 cfs
Spillway length: 835 feet RCC stepped
Spillway elevation: 3075.78 feet NGVD
Basin Capacity: 391 acre-feet

TROPICANA DETENTION BASIN
Type: Compacted earthfill embankment/roller compacted concrete
Maximum Height: 10 feet
Outlet Discharge: 500 cfs
Length: 3,300 feet
Spillway Length: 3,300 feet
Spillway Elevation: 2,290 feet NGVD
Basin Capacity: 825 acre-feet

MITIGATION
Habitat of threatened desert tortoise
Permanent disturbance: 730 acres
Temporary disturbance: 215 acres

JUSTIFICATION: Construction of the authorized plan would provide a 100-year level of flood protection to the developing alluvial fan area and to portions of the existing developed urban community. The population of the Las Vegas Valley has increased from 94,000 in 1959 to over 1.4 million in 2000 and is expected to exceed 2 million by the year 2015, greatly increasing the potential for and severity of urban flood damages along Tropicana and Flamingo Washes. The present value of structures and contents in the overflow area is about $2.5 billion. Most major flooding events result from heavy local summer thunderstorms. The July 1975 flood caused $5 million in damages, $15.3 million at 2002 prices, throughout the greater Las Vegas communities. The severity of the July and August 1984 flooding and associated damages, estimated at $6.5 million, $9.9 million at 2002 prices, resulted in a Presidential Disaster Declaration for Clark County, including the Las Vegas Valley, in September 1984. Clark County also passed an emergency $15 million bond issue to deal with the flooding problem. In June 1985, the Clark County Regional Flood Control District was created by the Nevada State Legislature to provide an effective organization to address the flood problems in Clark County. The flood control district completed a Flood Control Master Plan in May 1986, which identifies a recommended plan for the Las Vegas Valley. The floods of June-July 1990 caused three fatalities and approximately $7.6 million in damages, $10.2 million at 2002 prices. The flood of July 1999 exceeded a 100-year storm event, caused two fatalities and approximately $21 million in damages to residential areas and businesses. The severity of this flood resulted in a Presidential Disaster Declaration for Clark County and immediate mobilization of the Emergency Management Agency and the Corps of Engineers disaster teams. The most recent flooding was in August 2003, which caused approximately $4 million in damages. The partially complete Tropicana and Flamingo Washes Project performed well and sustained no significant damage. Average annual benefits, at October 1991 price levels, are $27,000,000, all flood control. The project will provide a 100-year level of flood protection. Future benefits are more than 20 percent of total project benefits. Future benefits are based on savings in future flood proofing costs which would be incurred without the project. The project does not directly or indirectly induce floodplain development.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue construction of Flamingo Detention Basin and the F4 Debris Basin and Channel	$1,000,000
Complete construction of Upper Blue Diamond Wash and Channel	3,000,000
Planning, Engineering and Design	2,975,000
Construction Management	1,500,000
Total	$8,475,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas (including mitigation).	$39,314,000	$
Modify or relocate utilities, roads, bridges (except railroad (bridges), and other facilities, where necessary for the construction of the project.	4,067,000	
Pay 10 percent of the cost shown as allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103(m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsors' ability to pay as reduced for credit allowed based on prior work (Section 104 of the Water Resources Development Act of 1986) and bear all costs of operation, maintenance, repair rehabilitation and replacement of flood control facilities. This amount will be further reduced for credit allowed for the added cost for project channel crossings based on the final credit amount as authorized by Section 107 of the Energy and Water Development Appropriations Act, 2003.	29,419,000	600,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	7,300,000	
Total Non-Federal Project Costs	$80,100,000	$ 600,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Clark County Regional Flood Control District and the Department of Public Works are the local sponsors for flood control. The Clark County Comprehensive Planning Department is the potential local sponsor for the recreation feature. The Project Cooperation Agreement for flood control was executed on 7 February 1995. The current non-Federal cost estimate of $72.8 million for flood control, which includes a cash contribution of $29.4 million, is an increase of $11.7 million from the non-Federal cost estimate of $61.1 million noted in the flood control Project Cooperation Agreement, which included a cash contribution of $45.1 million. The cash contribution is being partially offset by a credit of $9.9 million allowed for locally constructed flood control work determined to be in accordance with Section 104 of the Water Resources Development Act of 1986. The Section 211 Amendment to the Project Cooperation Agreement was signed on 17 December 1999. The non-Federal sponsor is constructing the lateral collector system, which will exceed $18 million. The Project Cooperation Agreement for recreation is currently unscheduled.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $231,900,000 is an increase of $16,600,000 from the latest estimate ($215,300,000) presented to Congress (FY 2004). This change includes the following items.

Item	Amount
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	$16,600,000
Total	$16,600,000

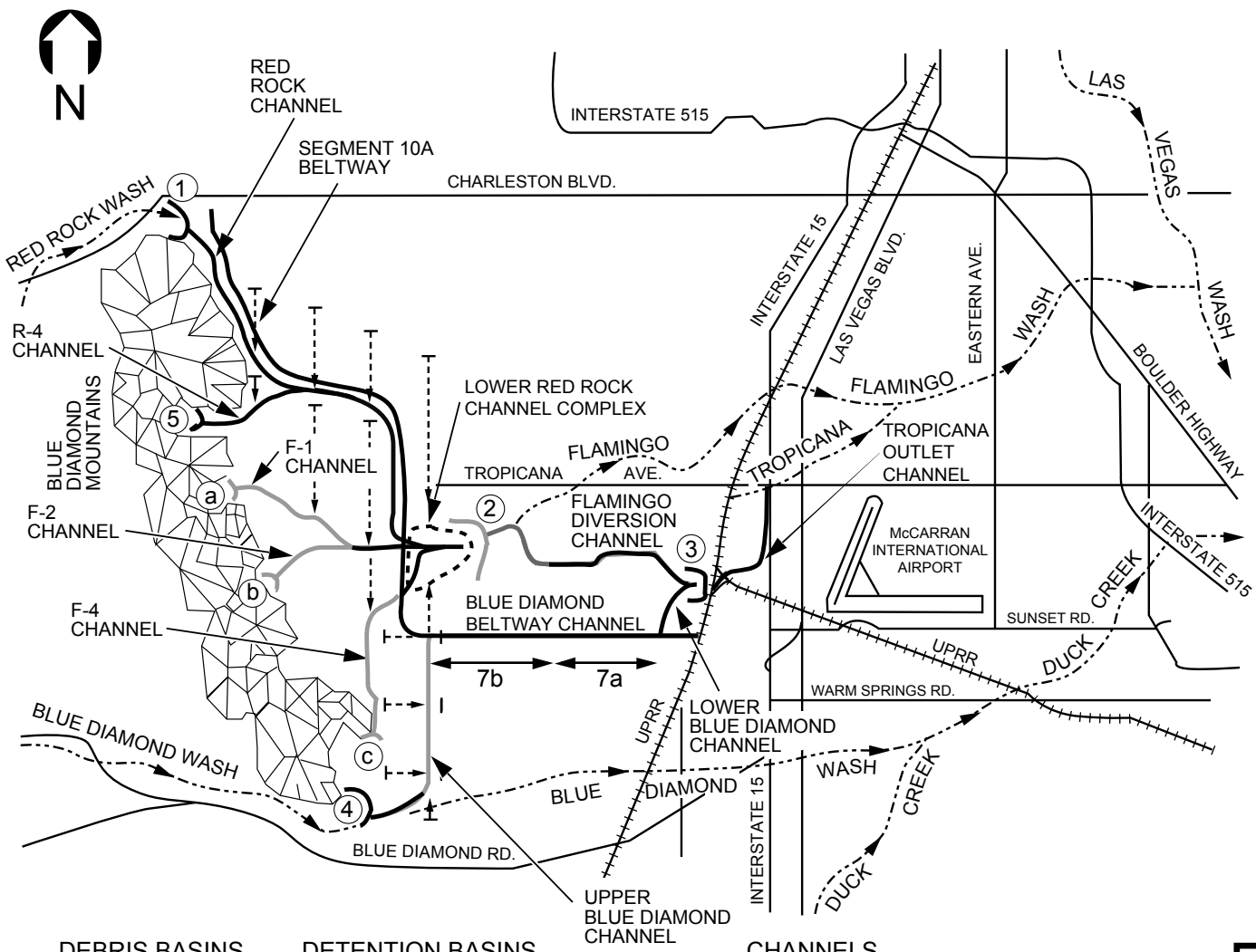
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final environmental impact statement was filed with the Environmental Protection Agency in October 1991.

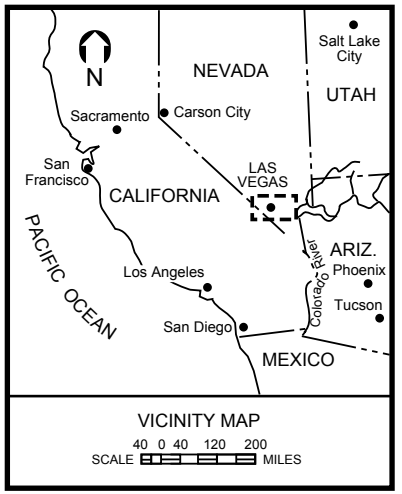
OTHER INFORMATION: Funds were appropriated to initiate pre-construction engineering and design in FY 1992 and to initiate construction in FY 1994.

Section 211 of the Water Resources Development Act of 1996 authorized development of flood control projects by non-Federal interests. Section 211(f)(5) specifically names the Tropicana and Flamingo Washes, Nevada, Project to demonstrate the potential advantages and effectiveness of non-Federal implementation, and further states that, subject to amounts being made available in advance in appropriations, the Secretary may reimburse without interest, to the non-Federal interest an amount equal to the estimated Federal share of the cost of such work, if such work is later recommended by the Chief of Engineers, and approved by the Secretary. As of December 2000, the non-Federal sponsors constructed approximately nine miles of project flood control channel concomitant with the Las Vegas Beltway System. The estimated Federal share is approximately $25 million. The Section 211 amendment to the Project Cooperation Agreement was signed 17 September 1999. Partial reimbursement of $1.6 million was made in Fiscal Year 2001 and $8 million in Fiscal Year 2002 and $1.7million in Fiscal Year 2003.

The Tropicana and Flamingo Washes Recreation Formulation Report is being coordinated with the potential sponsor to address the formulation and evaluation of recreation facilities. The final report is scheduled for submission to our Washington level for review and approval in June 2004. This report will be used as the basis to support a Project Cooperation Agreement for the recreation purpose.

Total project costs are approaching the authorized maximum. Review of remaining requirements is currently underway. Authorization to exceed current limits may be required.





LEGEND

- Work Completed as of 30 September 2003
- Work Proposed With Funds Available For FY 2004
- Work Proposed With Funds Requested For FY 2005
- Work Required to Complete the Project After FY 2005
- Existing Washes, Streams, Creeks
- Typical Lateral Collector Channels
- Primary Channels
- Debris Basins
- Detention Basins

SCALE IN MILES

1 1/2 0 1 2

DEBRIS BASINS

- (a) F-1 (Complete FY04)
- (b) F-2 (Complete FY04)
- (c) F-4 (Complete FY06)

DETENTION BASINS

- (1) RED ROCK (Completed FY97)
- (2) FLAMINGO (Complete FY06)
- (3) TROPICANA (Completed FY98)
- (4) BLUE DIAMOND (Completed FY01)
- (5) R-4 (Complete FY03)

CHANNELS

- UPPER FLAMINGO (Complete FY04)
- F-1/F-2 (Complete FY04)
- LOWER FLAMINGO DIV (Complete FY02)
- R-4 (Complete FY03)

TROPICANA AND FLAMINGO WASHES

CLARK COUNTY, NEVADA

LOS ANGELES DISTRICT
SOUTH PACIFIC DIVISION

1 JANUARY 2004

APPROPRIATION TITLE: Construction, General - Reservoirs

PROJECT: Acequias Irrigation System, New Mexico (Continuing)

LOCATION: There are about one thousand recognized Acequias throughout the state of New Mexico. Most are located in north-central New Mexico in the counties of Mora, Rio Arriba, Santa Fe, San Miguel and Taos.

DESCRIPTION: Protect and restore river diversions and associated canals of community Acequia systems in New Mexico.

AUTHORIZATION: Water Resources Development Acts of 1986 and 1996.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable. 1/

TOTAL BENEFIT - COST RATIO: Not applicable. 1/

INITIAL BENEFIT - COST RATIO: Not applicable. 1/

BASIS OF BENEFIT - COST RATIO: Not applicable. 1/

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST
Estimated Federal Cost		$66,000,000	
Estimated Non-Federal Cost		22,000,000	
Cash Contribution	$22,000,000		
Total Estimated Project Cost		$88,000,000	
Allocations to 30 September 2003		$19,908,000	
Conference Allowance for FY 2004		2,500,000	
Allocation for FY 2004		1,932,000 2/	
Allocations through FY 2004		21,840,000	33

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Diversion Structures		
Canals and Ditches	26	TBD

1/ Project was authorized without regard to economic analysis in accordance with Section 1113 of the Water Resources Development Act of 1986.

2/ Reflects $553,000 reduction assigned as savings and slippage and $15,000 rescission.

SUMMARIZED FINANCIAL DATA (continued)

		ACCUM. PCT. OF EST. FED. COST
Allocation Requested for FY 2005	$ 1,200,000	35
Programmed Balance to Complete after FY 2005	42,960,000	
Unprogrammed Balance to Complete after FY 2005	0	

JUSTIFICATION: The acequia community ditch systems provide irrigation water to about 160,000 acres on an estimated 12,000 farms. About seventy percent of the farms average less than twenty acres in size and are used for subsistence farming. Acequias have been in existence since the early Spanish Colonization period of the 17th and 18th centuries and represent one of the oldest forms of cooperative institutions in the United States. They are an integral part of the culture and heritage of New Mexico. Justification for the project is based upon the historic and social significance the Acequias have for the local residents and the major role they play in the overall local economy. Flood damages to the acequia diversion dams and main delivery systems and subsequent interruption of water flow to the systems can have a devastating effect on the irrigators. At the most critical times for irrigation, high flood flows from spring snowmelt at the beginning of the irrigation season and from intense summer thunderstorms during the peak of irrigation cause structural damage or complete loss of ditch structures needed for delivering water to crops.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Rehabilitation of Acequias	$ 900,000
Planning, Engineering and Design	150,000
Construction Management	150,000
Total	$1,200,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Acts of 1986 and 1996, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Pay 25 percent of the costs of Acequias restoration following the completion of reconnaissance level activities.	$22,000,000 3/	$ 0 4/
Total Non-Federal Cost	$22,000,000 3/	$ 0 4/

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

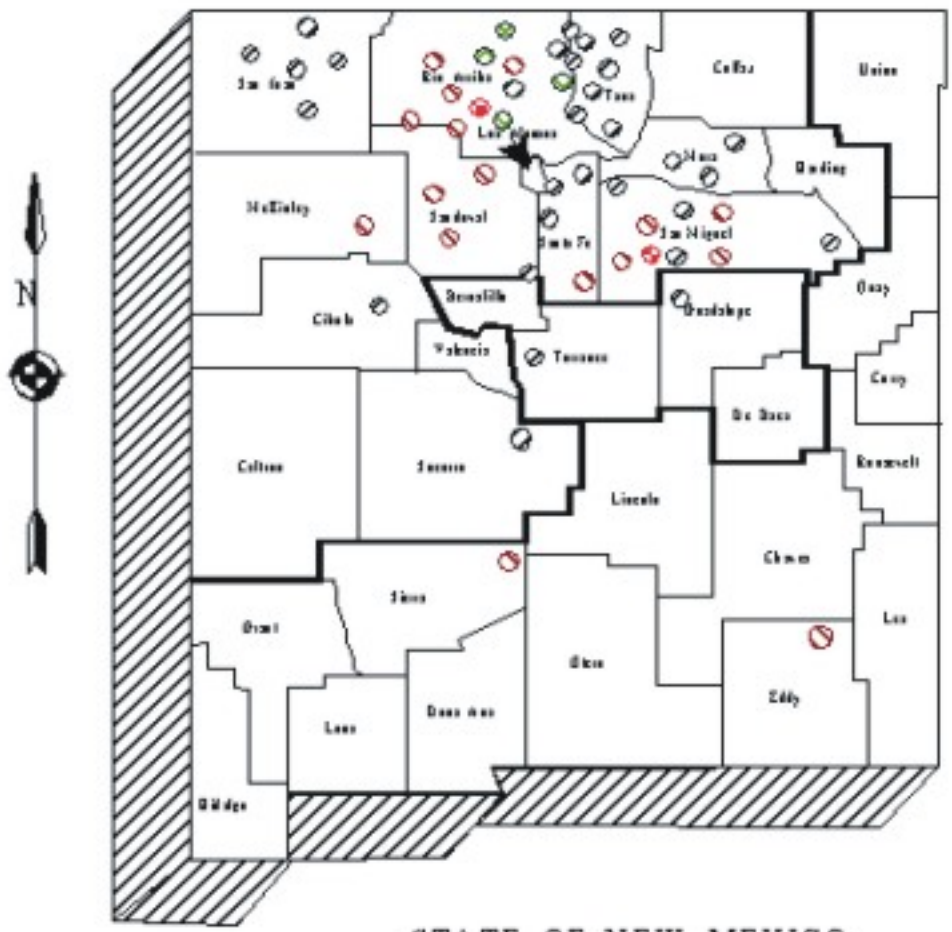
3/ Section 334 of the Water Resources Development Act of 1996 amended Section 1113 of the Water Resources Development Act of 1986 to make the Federal share of reconnaissance studies carried out by the Secretary 100 percent.
4/ Operation, maintenance, repair, rehabilitation and replacement costs historically are the responsibility of each acequia organization.

STATUS OF LOCAL COOPERATION: The local sponsor, the State of New Mexico, has enacted legislation whereby the State provides 17-1/2% of the project costs and low interest loans to the local Acequias for the remaining 7-1/2% of the non-Federal share. The State of New Mexico has appropriated, on an annual basis, the funds necessary to meet the requirements of local sponsorship. Local Cooperation Agreements have been signed for funds appropriated in Fiscal Year 1988, Fiscal Year 1989, and Fiscal Year 1990. The general Local Cooperation Agreement to cover all the Acequias within the State for remaining work after Fiscal Year 1990 was executed in June 1992. An amended Project Cooperation Agreement, incorporating the cost sharing contained in Section 334 of the Water Resources Development Act of 1996, was executed in March 1999.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $66,000,000 (1 October 2003) is the same as the latest estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment will be prepared for each Acequia Restoration Project prior to initiating construction.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1987. Funds to initiate construction were appropriated in Fiscal Year 1988. The state of New Mexico is the local sponsor for all the Acequias projects within the State.



STATE OF NEW MEXICO

SCALE IN MILES
0 40 80 120 160

STATUS OF WORK

- Work completed as of 30 Sept 2003
- Work proposed with funds available for FY 2004
- Work proposed with funds requested for FY 2005
- Work required to completed the project after 30 Sept 2005

ACEQUIAS IRRIGATION SYSTEM NEW MEXICO

U S Army Corps of Engineers
Albuquerque District, South Pacific Division
Albuquerque, New Mexico
1 January 2004

2 February 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Alamogordo, New Mexico (Continuing)

LOCATION: The project is located in Otero County, in and near Alamogordo, New Mexico. The city of Alamogordo is situated at the foot of the Sacramento Mountains near the eastern edge of the Tularosa (Closed) Basin.

DESCRIPTION: The authorized project consists of three concrete and rip-rap lined diversion channels which will intercept flood flows from canyons and arroyos in the Sacramento Mountains east of the City.

AUTHORIZATION: Flood Control Act of 1962, Energy and Water Development Appropriations Act (PL 108-137, Section 105) of 2004.

REMAINING BENEFIT - REMAINING COST RATIO: 2.9 to 1 at 8 7/8 percent.

TOTAL BENEFIT - COST RATIO: 1.8 to 1 at 8 7/8 percent.

INITIAL BENEFIT - COST RATIO: 4.6 to 1 at 8 7/8 percent (FY 1988).

BASIS OF BENEFIT - COST RATIO: Benefits are from the General Reevaluation Report, approved in March 1999, using October 1998 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST
Estimated Federal Cost		$41,400,000	
Estimated Non-Federal Cost		13,800,000	
Cash Contribution	$11,600,000		
Other Costs	2,200,000		
Total Estimated Project Cost		$55,200,000	
Allocations to 30 September 2003		$12,423,000	
Conference Allowance for FY 2004		4,100,000	
Allocation for FY 2004		1,871,000 1/	
Allocations through FY 2004		14,294,000	35

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	20	TBD
PHYSICAL DATA		
Concrete Lined Channel:	47,500 ft.	
Sediment Basins:	5	
Detention Basins:	1	
Stilling Basin:	1	
Relocation	3 (RR Bridges)	

1/ Reflects $908,000 reduction assigned as savings and slippage, $24,000 rescission and $1,297,000 reprogrammed from the project..

SUMMARIZED FINANCIAL DATA (continued)

		ACCUM. PCT. OF EST. FED. COST
Allocation Requested for FY 2005	$ 4,500,000	45
Programmed Balance to Complete after FY 2005	22,606,000	
Unprogrammed Balance to Complete after FY 2005	0	

JUSTIFICATION: There are no well-defined watercourses in the Tularosa (Closed) Basin. Many canyons and arroyos which descend to the valley floor from the mountains bordering the basin carry runoff. Several arroyos head on the west slope of the Sacramento Mountains and flow westward through the city of Alamogordo, causing extensive damage to residential and business properties, schools and churches, utilities, streets, highways, roads, and other public properties. The major problem arroyos from north to south are Dry, Beeman, Marble, and Alamo Canyons. Also, several minor unnamed arroyos in the vicinity contribute to the problem. Estimated total property valuation of the area in the 100-year flood plain is $490,000,000 (1 October 2003). Estimated damages from an occurrence of the one percent chance flood under present conditions are $87,000,000. Records indicate that from 1935 through 1959, eleven floods exceeded the capacity of railroad drainage structures in the area, overtopping the tracks by as much as two feet. Floods on 17 and 26 August 1959 caused estimated damages of $240,000 and $57,000, respectively. These damages, based on 1 October 2003 price levels, would be $2,700,000 and $670,000, respectively. Other minor flooding, occurring as recently as 1979 and 1984, has caused City officials to be concerned about the flood threat. The average annual benefits are $8,326,800, all flood control, based on October 1998 price levels.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction of South Channel	$3,800,000
Planning, Engineering and Design	350,000
Construction Management	350,000
Total	$4,500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Cost
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 1,600,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	600,000	
Pay 21 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	$11,600,000	$132,000
Total Non-Federal Cost	$13,800,000	$132,000

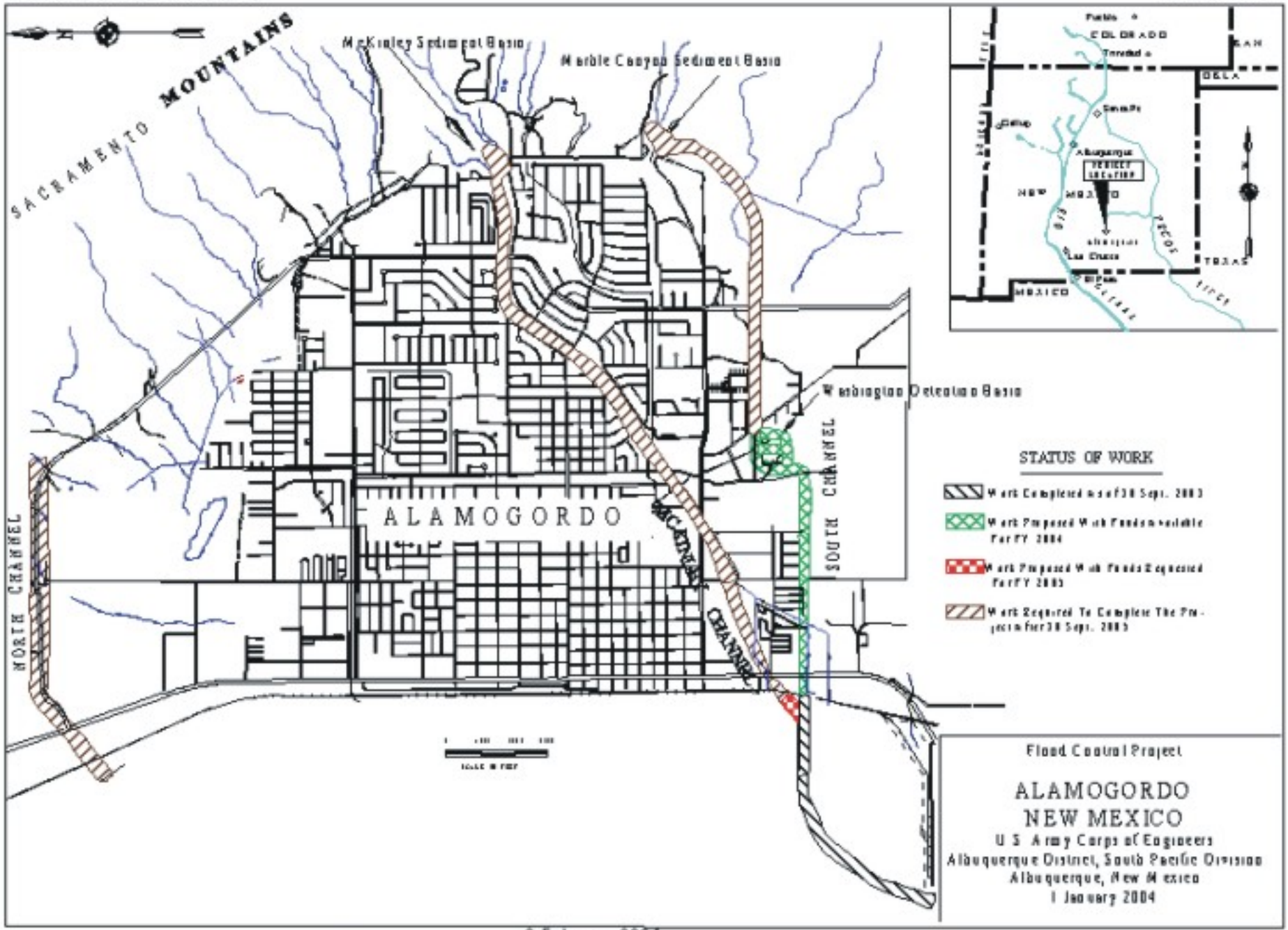
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement with the city of Alamogordo, New Mexico, was executed in July 1999. The current non-Federal cost estimate of $13,800,000, which includes a cash contribution of $11,600,000 is the same as the non-Federal cost estimate noted in the Project Cooperation Agreement. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment. Their first payment for construction was received on 15 December 2000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $41,400,000 (1 October 2003) is the same as the latest estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment and Finding of No Significant Impact (FONSI) for the current plan of improvement were signed in October 1998.

OTHER INFORMATION: The city of Alamogordo has been working with the U.S. Army Corps of Engineers and the New Mexico Congressional Delegation for over thirty years seeking a solution to the flood threat from the Sacramento Mountains located east of the City. Funds to initiate construction of the diversion channel were appropriated in Fiscal Year 1988. Work was discontinued in September 1988, without a contract being awarded, because the City could not give assurances of local cooperation due to the failure of a bond issue. To satisfy the concerns expressed by the City Commissioners and area residents, alternative solutions were investigated and were outlined in an Interim Letter Report dated August 1992. The letter report recommended reevaluation of the project through the preparation of a General Reevaluation Report. The General Reevaluation Report addresses alternatives to the authorized Standard Project Flood protection plan. The new alternatives are being constructed in phases to accommodate the sponsor's financial plan. To that end, the City provided a letter of intent emphasizing their commitment and support for further analysis. The General Reevaluation Report was completed in April 1999. The General Reevaluation Report's recommended plan consists of construction of two new diversion channels and upgrading an existing earthen channel which will intercept flows from the Sacramento Mountains. Appurtenant project features include 5 sediment basins, 1 detention basin, and a stilling basin. The Local Sponsor requested that the U.S. Army Corps of Engineers consider a flood detention basin in place of the authorized channel to protect Alamogordo's north side from flooding. Section 105 of the Energy and Water Development Act, 2004 modifies the original project authority by authorizing and directing the Secretary "to construct a flood detention basin to protect the north side of the City of Alamogordo, New Mexico, from flooding. The flood detention basin shall be constructed to provide protection from a 100-year flood event. The project cost share for the flood detention basin shall be consistent with section 103(a) of the Water Resources Development Act of 1986, notwithstanding section 202(a) of the Water Resources Development Act of 1996." Once a decision document has been approved, the Project Cooperation Agreement will be amended.



2 February 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: El Paso, Texas (Continuing)

LOCATION: The project is located in El Paso, El Paso County, Texas

DESCRIPTION: The project consists of a single-purpose flood control system of detention dams, diversion dikes, conduits, and channels to collect, regulate and discharge runoff into the Rio Grande.

AUTHORIZATION: Flood Control Act of 1965.

REMAINING BENEFIT - REMAINING COST RATIO: 11.8 to 1 at 3 1/4 percent.

TOTAL BENEFIT - COST RATIO: 2.0 to 1 at 3 1/4 percent.

INITIAL BENEFIT - COST RATIO: 1.5 to 1 at 3 1/4 percent (FY 1970).

BASIS OF BENEFIT - COST RATIO: Benefits are from the General Design Memorandum approved in September 1987 at October 1987 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST
Estimated Federal Cost		$123,700,000	
Estimated Non-Federal Cost		39,700,000	
Cash Contribution	$ 4,520,000		
Other Costs	35,180,000		
Total Estimated Project Cost		$163,400,000	
Allocations to 30 September 2003		$118,346,000	
Conference Allowance for FY 2004		2,800,000	
Allocation for FY 2004		3,319,000 1/	
Allocations through FY 2004		121,665,000	98

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	97	November 2004

PHYSICAL DATA

Central Area:
Dams - 6
Channels - 34,900 ft.
Conduits - 25,900 ft.

Southeast Area:
Dams - 4
Channels - 26,000 ft.

Northwest Area:
Dams - 5
Channels - 21,000 ft.
Conduits - 13,700 ft.

Detention Basins:
Chevron
Phelps Dodge
Lomaland
Americas

1/ Reflects $620,000 reduction assigned as savings and slippage, $17,000 rescission and $1,156,000 reprogrammed to the project.

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM. PCT. OF EST. FED. COST
Allocation Requested for FY 2005	$ 1,232,000	99
Programmed Balance to Complete after FY 2005	803,000	
Unprogrammed Balance to Complete after FY 2005	0	

JUSTIFICATION: The project provides flood protection for approximately 8,830 urban acres subject to damaging floods from arroyos on the slopes of the adjacent mountains. Major damaging floods occurred in 1950, 1955, 1958, 1962, 1963, 1966, 1967, 1968, and 1974. The flood of record occurred in 1958 and caused estimated damages of $984,000. Recurrence of this flood based on October 2003 prices would cause damages estimated at $8,600,000. Standard Project Flood is the design flood for the Central and Northwest Areas. The National Economic Development Plan has been selected for the Southeast Area. Value of land and improvements in the Standard Project Flood Plain is about $3.3 billion (October 2003 prices). Average annual benefits are $10,873,000, all flood control, based on October 1987 price levels.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Complete construction	$ 300,000
Construction Management	32,000
Planning, Engineering and Design	900,000
Total	$1,232,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation During	Payments Repair, Construction and Reimbursement	Annual Operation, Maintenance, Rehabilitation and Replacement Costs
Central and Northwest Areas:		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$10,740,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	2,560,000	
Bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	0	$535,000
Total Non-Federal Costs (Central and Northwest Areas)	$13,300,000	$535,000
Southeast Area:		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$19,550,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	2,330,000	
Pay 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	4,520,000	$ 97,000
Total Non-Federal Costs (Southeast Area)	$26,400,000	$ 97,000
Total Non-Federal Costs (Southeast, Central and Northwest Areas)	$39,700,000	$632,000

STATUS OF LOCAL COOPERATION: The project sponsor, the city of El Paso, executed a Section 221 agreement on 31 August 1972 which was approved by the Assistant Secretary of the Army for Civil Works on 7 September 1972. The city of El Paso is acquiring rights-of-way for each item of construction as required.

The Local Cooperation Agreement for construction in the Southeast Area was executed with the city of El Paso, Texas, in September 1988. The current non-Federal cost estimate of $26,400,000, for the Southeast Area, which includes a cash contribution of $4,520,000, is an increase of $4,700,000 from the non-Federal cost estimate of $21,700,000 noted in the Local Cooperation Agreement, which included a cash contribution of $3,700,000. In the Local Cooperation Agreement, the non-Federal Sponsor indicated that it is financially capable and willing to contribute the non-Federal share. Our analysis of the non-Federal Sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

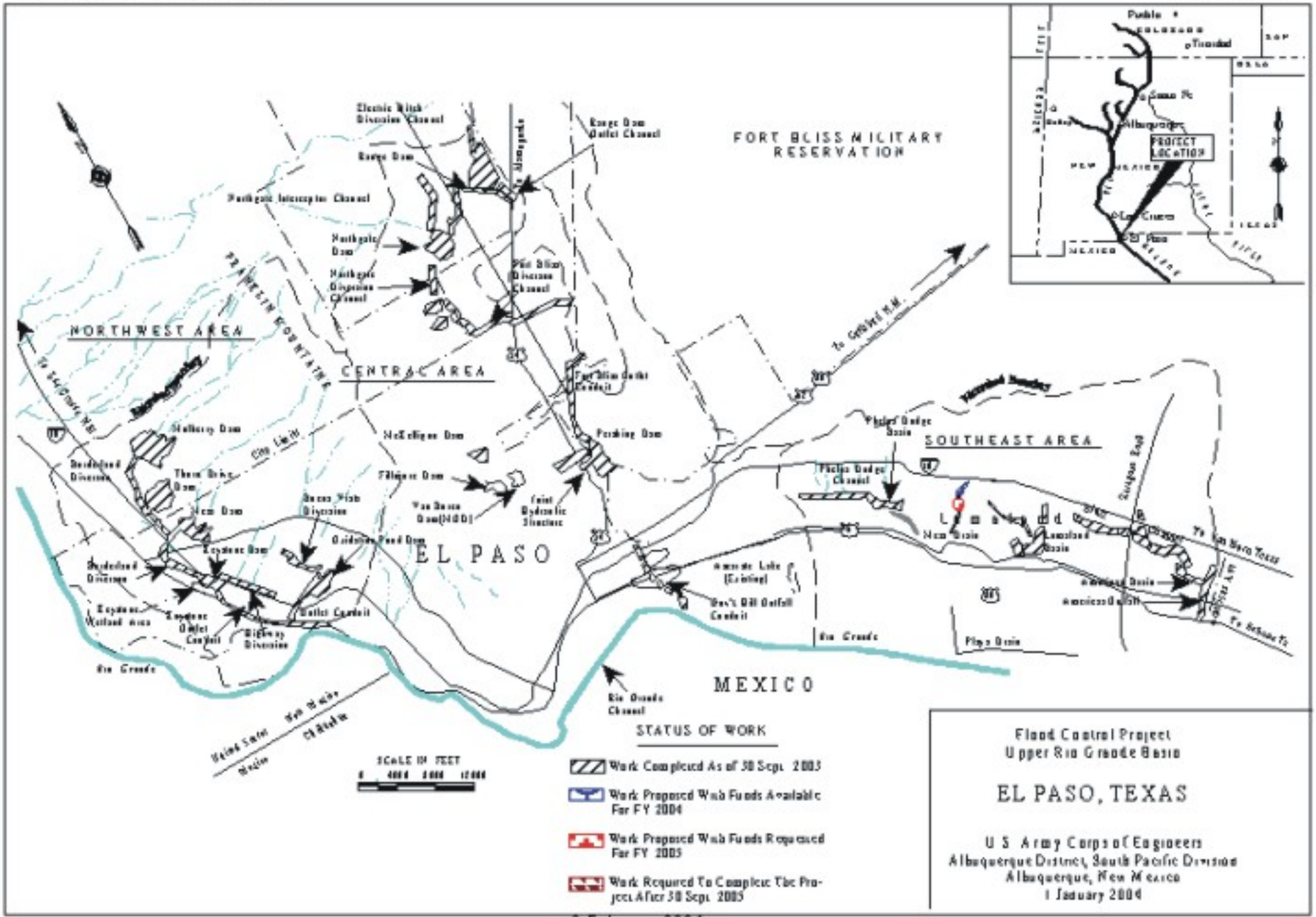
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $123,700,000 (1 October 2003) is the same as the latest estimate ($123,700,000) presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement for the Central Area was filed with the Council on Environmental Quality in November 1970. The final Environmental Impact Statement for the Northwest Area was submitted to the Council on Environmental Quality in November 1977. The final Environmental Impact Statement for the Southeast Area was filed with the Environmental Protection Agency in November 1987.

OTHER INFORMATION: Funds to initiate engineering and design were appropriated in Fiscal Year 1967, and for construction in Fiscal Year 1970. Funds to initiate construction of the Southeast Area were appropriated in Fiscal Year 1988. The Southeast Area is scheduled to be physically completed in November 2004. However, the Chevron Basin feature of the Southeast Area project will not be constructed because of environmental concerns. A General Reevaluation Report will be prepared to determine alternatives for the flood control that Chevron Basin would have provided, and to address Central Area residual flooding.

CORPS OF ENGINEERS

U.S. ARMY



2 February 2004

APPROPRIATION TITLE: Construction, General – Environmental Restoration

PROJECT: Rio Salado, Phoenix and Tempe Reaches, Arizona

LOCATION: The project area consists of two reaches, Phoenix Reach and Tempe Reach. Phoenix Reach is located approximately 5 miles along the Salt River in the city of Phoenix, Maricopa County, Arizona. Tempe Reach is located along 1.3 miles on Indian Bend Wash, from McKellips Road bridge downstream to the confluence with the Salt River, 0.5 mile of the Salt River, from McClintock Road to the upstream dam for the Tempe Town Lake, and 0.5 mile downstream to Priest Drive in the city of Tempe, Maricopa County, Arizona.

DESCRIPTION: Phoenix Reach is subdivided into phases and consists of the sponsor's construction of a low-flow channel in the river bottom of the Rio Salado. Phase I is from 19th Avenue to Central Avenue, Phase II is from Central Avenue to 16th Street, and Phase III is from 16th Street to Interstate 10. The project consists of the establishment of aquatic riparian and sonoran desert habitat restoration, acceptable surface and groundwater quality improvements, and incidental recreational opportunities. Other major features include a water distribution system and multi-purpose maintenance roads. Recreation development consists of parking lots, restroom facilities, and approximately ten miles of trails.

Tempe Reach consists of riparian, sonoran desert and aquatic habitat restoration, water supply and distribution system to support the habitat, and limited recreational features. The project will restore valuable and scarce native plan communities including mesquite, cottonwood-willow and aquatic habitat such as wetland marsh. Incidental recreation consists of ramadas, an overlook station, a parking lot, restroom facilities, and trails.

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Benefits are evaluated in items of habitat units, not dollars for environmental restoration projects. Benefits were approved in the Report of the Chief of Engineers dated August 20, 1998.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Phoenix Reach:			
Estimated Federal Cost		$ 60,900,000	
Estimated Non-Federal Cost		34,100,000	
Cash Contributions	29,800,000		
Other Costs	4,300,000		
Total Phoenix Reach		$ 95,000,000	
Tempe Reach:			
Estimated Federal Cost		$ 5,400,000	
Estimated Non-Federal Cost		3,000,000	
Cash Contributions	3,000,000		
Other Costs	0		
Total Tempe Reach		$ 8,400,000	
PROJECT SUMMARY:			
Estimated Federal Cost		$ 66,300,000	
Estimated Non-Federal Cost		37,100,000	
Cash Contributions	32,800,000		
Other Costs	4,300,000		
Total Estimated Project Cost		$ 103,400,000	
Allocations to 30 September 2003		$ 24,462,000	
Conference Allowance for FY 2004		17,000,000	
Allocation for FY 2004		13,137,000 2/	
Allocations through FY 2004		37,599,000	57
Allocation Requested for FY 2005		13,000,000	76
Programmed Balance to Complete after FY 2005		15,701,000	
Unprogrammed Balance to Complete after FY 2005		0	

	STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION
Phoenix Reach		70	TBD
Tempe Reach		35	TBD
Entire Project		60	TBD 1/

1/ Includes credit work completed by sponsors.

2/ Reflects $3,762,000 reduction assigned as savings and slippage and a $101,000 rescission.

PHYSICAL DATA

Phoenix Reach

Environmental Habitat

Low-Flow Channel	
Wetland marsh	9 acres
Aquatic strand	51 acres
Open edges	70 acres
Bench/Bank	
Mesquite	110 acres
Cottonwood/willow habitat	79 acres
Wetland marsh	49 acres
Open edges	57 acres
Other (Infrastructure)	15 acres
Overbank	
Mesquite	20 acres
Cottonwood/willow habitat	20 acres
Open edges	10 acres
Other (Infrastructure)	10 acres
Access Areas	
Open edges	50 acres

Recreation Development

Ramadas	5
Parking lots	3
Restroom facilities	2
Gardens	4
Hiking trails	10 miles

Low Flow Channel

Length:	5 miles
Base Width:	200 feet
Depth:	6-10 feet
Drop Structures	4
Water Wells:	approx 300 feet deep
Dike Groins	approx 42

Distribution System

Piping	5 miles
Ponds	approx 12

Tempe Reach

Environmental Habitat

Indian Bend Wash	
Open edges	10 acres
Mesquite	20 acres
Aquatic Strand	50 acres
Salt River	
Mesquite	10 acres
Cottonwood/willow habitat	20 acres
Wetland marsh	16 acres
Open edges	34 acres
Recreational Development	
Ramadas	3
Parking lot	1
Overlook structure	1
Restroom facilities	1
Hiking trails	3 miles

Indian Bend Wash

Low Flow Channel	
Length:	1.3 miles
Base Width:	10-20 feet
Depth:	3-8 feet
Water Well:	approx 300 feet deep
Distribution system	
Upstream	1.3 miles
Downstream	1.3 miles

JUSTIFICATION: Rio Salado has experienced degradation of wetlands and riparian vegetation within the existing flood control channel which is located in an arid, urban environment. The population growth in Maricopa County has increased the demands for water supply, water quality, environmental quality, water-related recreation and flood protection. Riparian habitat is rapidly disappearing throughout the desert regions of the American Southwest. Approximately 90 percent of all wildlife species in Arizona depend on riparian habitat for their survival. Federal dams constructed in the early 1900's in the upper Salt and Verde Rivers have limited flows in the lower Salt River through the Phoenix Metropolitan area including Tempe. All historical riparian habitat has been severely impacted. Today, only sporadic vegetation exists in the Salt River. Open bodies of water that once supported waterfowl and migratory species have disappeared. Urbanization and construction of the Indian Bend Wash flood control project have eliminated high value riparian mesquite bosque communities. Opportunities exist to restore portions of the Indian Bend Wash by reestablishing riparian habitat. Riparian habitat is important as a source of food and cover for wildlife, as a shade source for smaller streams to help keep water temperatures low, as a natural bank stabilizer by preventing excessive erosion, and as natural filtering system to improve water quality. The recommended plan provides an increase of approximately 262 habitat units in the Phoenix area and 76 habitat units in the Tempe area.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Phoenix Reach:	
Continue construction of Water Quality Treatment System	$ 3,000,000
Continue and complete construction of Phase III	3,945,000
Continue Phase I Monitoring and Adaptive Management	500,000
Complete Water Supply Maintenance Road and Phase II	1,915,000
Planning, Engineering and Design	900,000
Construction Management	800,000
Tempe Reach:	
Complete Phase 2 construction	1,600,000
Planning, Engineering and Design	200,000
Construction Management	140,000
Total	$13,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the requirements listed below:

	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, & Replacement Costs
Requirements of Local Cooperation		
Phoenix Reach:		
Provide lands, easements, and rights-of-way.	$ 4,300,000	$
Pay 30 percent of the costs allocated to environmental restoration to bring the total non-Federal share of environmental restoration costs to 35 percent as reduced for credit allowed based on prior work, currently estimated at $23,977,000, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of environmental restoration facilities.	26,790,000	1,898,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	3,010,000	1,113,000
Total Phoenix Reach	$ 34,100,000	$ 3,011,000
Tempe Reach:		
Pay 35 percent of the costs allocated to environmental restoration to bring the total non-Federal share of environmental restoration costs to 35 percent as reduced for credit allowed based on prior work, currently estimated at $1,500,000, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of environmental restoration facilities.	$ 2,570,000	$ 244,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	430,000	156,000
Total Tempe Reach	$ 3,000,000	$ 400,000
Total Non-Federal Costs	$ 37,100,000	$ 3,411,000

The Non-Federal sponsors have also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Cities of Phoenix and Tempe are the local sponsors. The City of Phoenix and City of Tempe reaffirmed their support of the project by letters dated February 24, 1998 and March 4, 1998 respectively. The Project Cooperation Agreements (PCA) for the Phoenix Reach was executed in June 2001 and the PCA for the Tempe Reach was executed in March 2003.

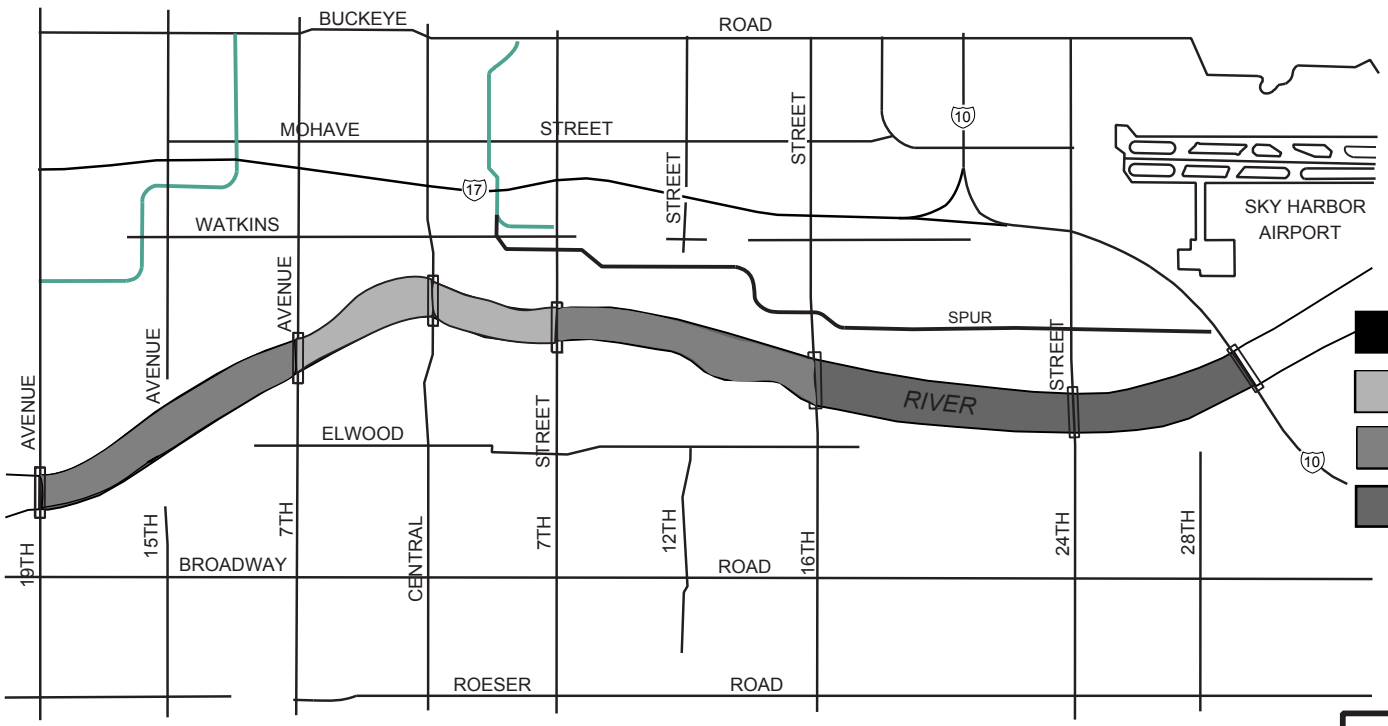
The current non-Federal cost estimate of $37,100,000, which includes a cash contribution of $32,800,000 may be offset by a partial credit of $23,977,000 for the Phoenix Reach, and $1,500,000 for the Tempe Reach allowed for locally-constructed work (low flow channel with drop structures, plant materials, and lake bypass system) approved by the Chief of Engineers Report dated August 20, 1998. In 1998, the non-Federal sponsors indicated that they are financially capable and willing to contribute the non-Federal share. Our analysis of the non-Federal sponsors' financial capability to participate in the project affirms that the sponsors have a reasonable and implementable plan for meeting their financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $66,300,000 is an increase of $1,700,000 from the latest estimate ($64,600,000) presented to Congress (FY 2003). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	$1,700,000
Total	$1,700,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was included in the Feasibility Report and Environmental Impact Statement for Rio Salado, Salt River, Arizona, dated April 1998. The Environmental Impact Statement was filed with Environmental Protection Agency in May 1998. The Record of Decision for the Environmental Impact Statement was signed in March 2000. The project is in compliance with the Arizona Environmental Quality Act.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1998. Funds to initiate construction were appropriated in Fiscal Year 2001.



LEGEND

- Work Completed as of 30 September 2003
- Work Proposed With Funds Available For FY2004
- Work Proposed With Funds Requested for FY 2005
- Work Required to Complete the Project After FY 2005

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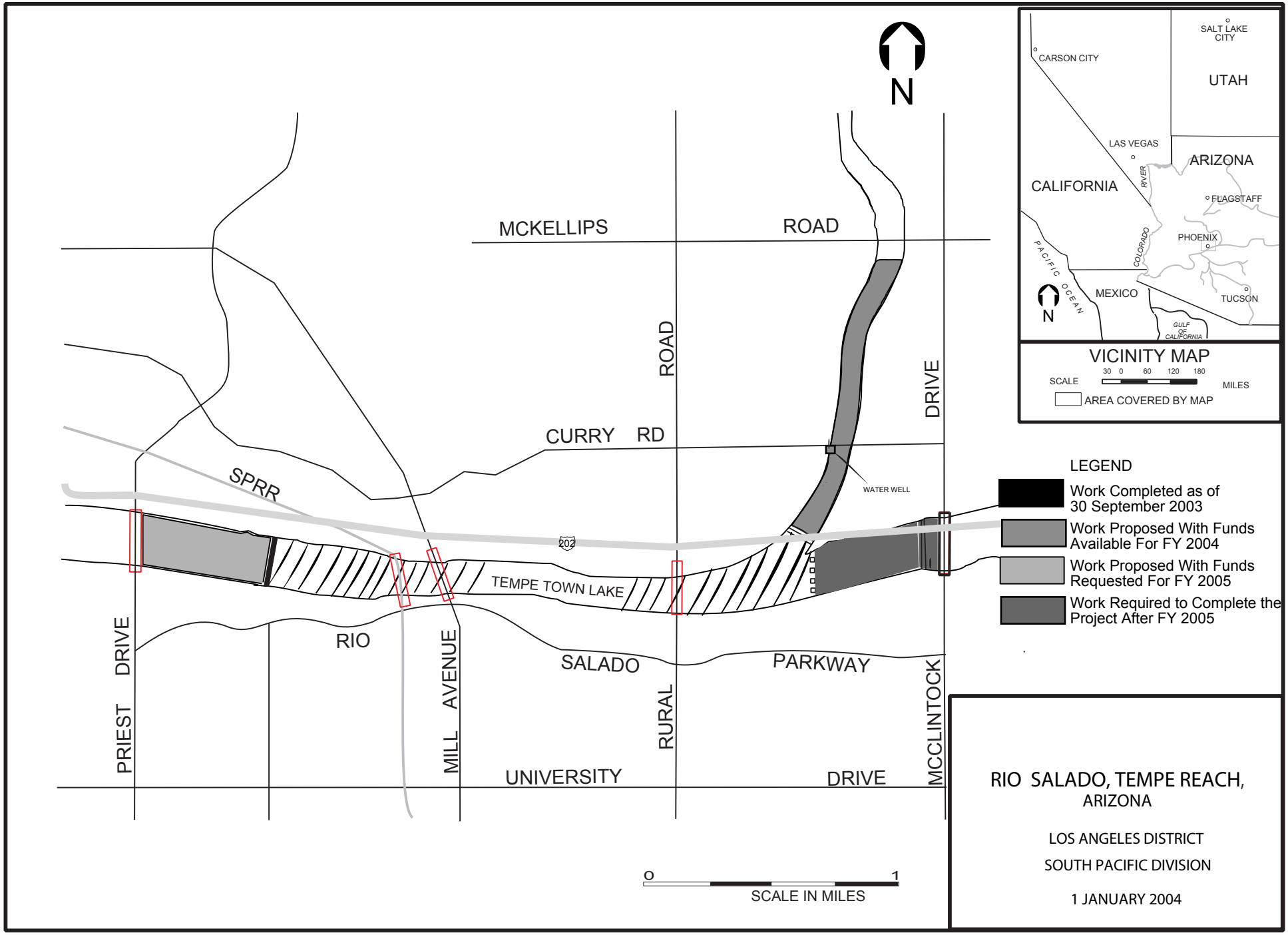
SCALE IN MILES

RIO SALADO, PHOENIX REACH, ARIZONA

LOS ANGELES DISTRICT
SOUTH PACIFIC DIVISION

1 JANUARY 2004



RIO SALADO, TEMPE REACH, ARIZONA

LOS ANGELES DISTRICT

SOUTH PACIFIC DIVISION

1 JANUARY 2004

APPROPRIATION TITLE: Construction, General – Environmental Restoration

PROJECT: Hamilton Airfield Wetlands Restoration, California (Continuing)

LOCATION: Hamilton Airfield Wetland Restoration Project is located 4 miles east of the city of Novato, on San Pablo Bay, Marin County, California.

DESCRIPTION: The project includes a 988-acre parcel consisting of a former military runway and adjacent California State Lands Commission areas. The site, currently protected by levees, has subsided below the elevation of surrounding properties including the tidal wetlands immediately adjacent to San Pablo Bay. This condition has resulted in the loss of valuable habitat for various waterfowl, fish and other wetland dependent species of plants and animals. The project allows for the beneficial reuse of 10.6 million cubic yards of dredged material, including approximately 2.6 million cubic yards from the Oakland Harbor, CA (50-ft) deepening project. The project promotes the long term management strategy for placement of dredged material in the San Francisco Bay region.

AUTHORIZATION: Water Resources Development Act of 1999

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: Not applicable.

INITIAL BENEFIT – COST RATIO: Not applicable

BASIS OF BENEFIT - COST RATIO: Project justification is based on nonmonetary benefits for wetland restoration.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 47,900,000	Entire Project	3	To be determined
Estimated Non-Federal Cost		$ 16,000,000			
Cash Contribution	$ 13,100,000				
Other Costs	2,900,000				
Total Estimated Project Cost		$ 63,900,000			

PHYSICAL DATA

Placement of 10.6 million cubic yards of dredged material; Breach tidal levee; Construction of 9400 ft of perimeter levee; and Wetland Restoration of 988 acres

SUMMARIZED FINANCIAL DATA (Continued)

			ACCUM PCT OF EST FED EST
Allocations to 30 September 2003	7,678,000		
Conference Allowance for FY 2004	3,000,000		
Allocation for FY 2004	1,818,000	1/	
Allocation through FY 2004	9,496,000		20
Allocation Requested for FY 2005	5,100,000		30
Programmed Balance to Complete after FY 2005	$33,304,000		
Unprogrammed Balance to Complete after FY 2005	0		

1/ Reflects $664,000 reduction assigned savings and slippage, $18,000 rescission, and $500,000 reprogrammed from the project.

JUSTIFICATION: The Hamilton Airfield Wetland Restoration project area, currently protected by levees, has subsided below the elevation of surrounding properties, including the tidal wetlands immediately adjacent to San Pablo Bay. This condition has resulted in the loss of valuable habitat for various waterfowl, fish and other wetland dependent species of plants and animals. The principal purpose of the project is beneficial use of dredged material from San Francisco Bay dredging projects to accelerate development and restoration of tidal wetlands. The project is also consistent with the local reuse plan for the airfield that was closed in 1974.

FISCAL YEAR 2005: The requested amount of $5,100,000 will be applied as follows:

Continue Construction	$2,100,000
Planning, Engineering and Design	2,000,000
Construction Management	1,000,000
Total	$5,100,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repairs, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	$ 300,000	N/A
Modify or relocate utilities, roads, bridges (except railroads bridges), and other facilities, where necessary for the construction of the project.	2,600,000	N/A
Pay 20.5 percent of the construction costs allocated to fish and wildlife restoration/beneficial use of dredged material in cash to bring the non-Federal share of the project to 25 percent in accordance with Section 204 of the Water Resources Development Act of 1992.	13,100,000	$ 228,000
Total Non-Federal Costs	$ 16,000,000	$ 228,000

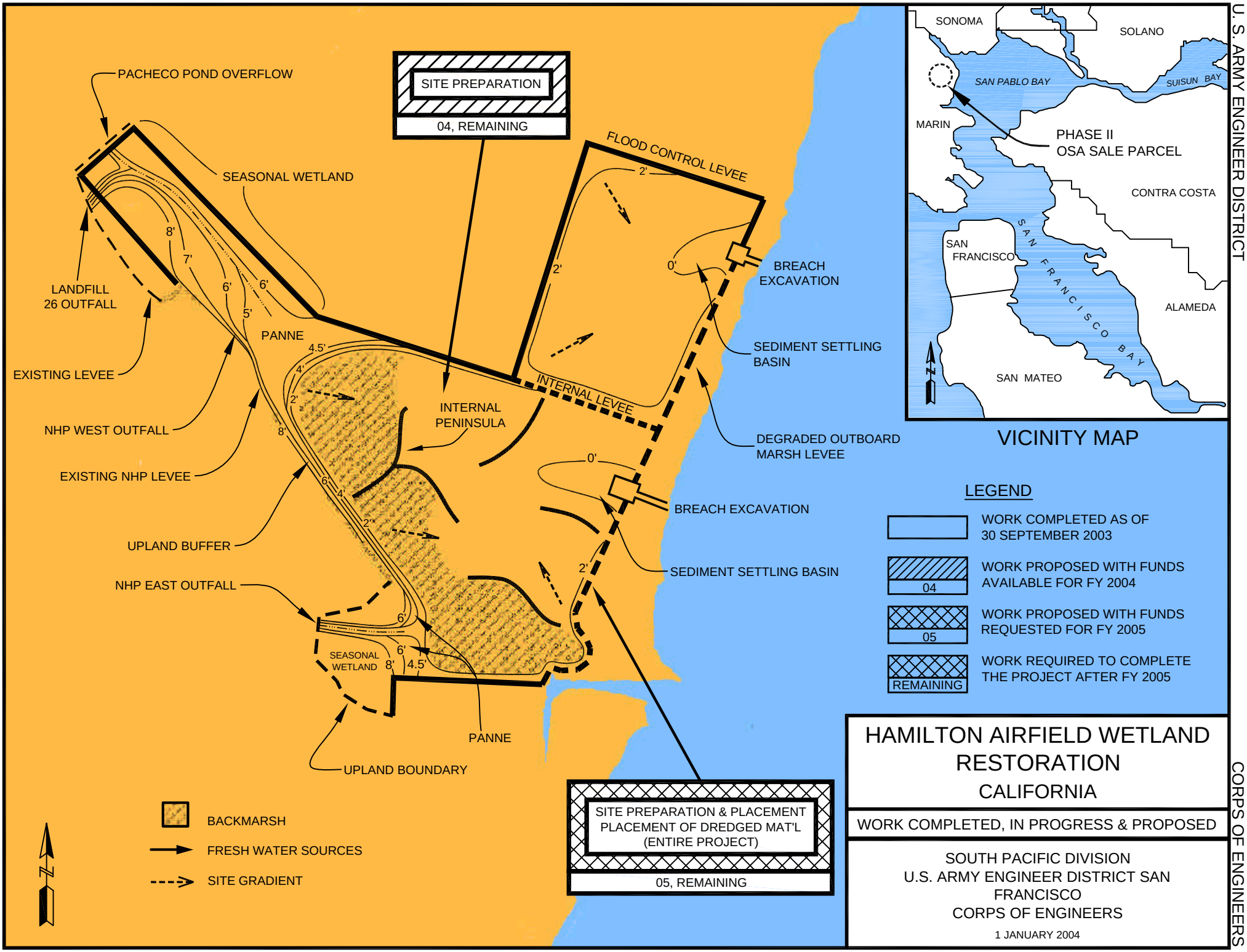
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The California Coastal Conservancy, the local sponsor, supports the project. The Project Design Agreement was executed in September 1999. The current non-Federal cost estimate of $16,000,000, which includes a cash contribution of $13,100,000, is an increase of $200,000 from the estimate reflected in the Project Cooperation Agreement, which was approved in April 2002. The non-Federal sponsor has indicated it is financially capable and willing to contribute to the non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The Current Federal cost estimate of $47,900,000 is an increase of $500,000 from the latest estimate ($47,400,000) presented to Congress (FY 2004). This increase is due to price escalation on construction features.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with EPA in February 1999.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were reprogrammed to the project with Congressional approval in Fiscal Year 1999. Funds to initiate construction were appropriated in Fiscal Year 2001. At the local sponsor's request, this project is being re-evaluated to examine the Federal interest in expanding the Hamilton project to include the adjacent 1,610-acre Bel Marin Keys Unit V parcel. The General Reevaluation Report (GRR) recommends the inclusion of the Bel Marin Keys and also reevaluates the previously authorized Hamilton Wetland Restoration Project. Total project first cost (October 2002 prices) reflected in the GRR, including the Bel Marin Keys increment, is estimated at $171,000,000. The GRR and Supplemental Environmental Impact Report/Environmental Impact Statement for Bel Marin Keys Unit V Expansion of the Hamilton Wetland Restoration Project were completed in December 2002. The Chief's Report is currently under review at the Washington D.C. level. Inclusion of the Bel Marin increment would require congressional authorization. Army Base Realignment And Closure (BRAC) transfer of the Hamilton Airfield parcel to the State of California occurred in September 2003.


PACHECO POND OVERFLOW
SITE PREPARATION
04, REMAINING
SEASONAL WETLAND
FLOOD CONTROL LEVEE
LANDFILL
26 OUTFALL
EXISTING LEVEE
NHP WEST OUTFALL
EXISTING NHP LEVEE
UPLAND BUFFER
NHP EAST OUTFALL
PANNE
INTERNAL LEVEE
INTERNAL
PENINSULA
BREACH
EXCAVATION
SEDIMENT SETTLING
BASIN
DEGRADED OUTBOARD
MARSH LEVEE
BREACH EXCAVATION
SEDIMENT SETTLING BASIN
SEASONAL
WETLAND
PANNE
UPLAND BOUNDARY
SITE PREPARATION & PLACEMENT
PLACEMENT OF DREDGED MAT'L
(ENTIRE PROJECT)
05, REMAINING
BACKMARSH
FRESH WATER SOURCES
SITE GRADIENT
N
SONOMA
SOLANO
SAN PABLO BAY
SUISUN BAY
MARIN
PHASE II
OSA SALE PARCEL
CONTRA COSTA
SAN
FRANCISCO
SAN FRANCISCO BAY
ALAMEDA
SAN MATEO
VICINITY MAP
LEGEND
WORK COMPLETED AS OF
30 SEPTEMBER 2003
04
WORK PROPOSED WITH FUNDS
AVAILABLE FOR FY 2004
05
WORK PROPOSED WITH FUNDS
REQUESTED FOR FY 2005
REMAINING
WORK REQUIRED TO COMPLETE
THE PROJECT AFTER FY 2005
HAMILTON AIRFIELD WETLAND
RESTORATION
CALIFORNIA
WORK COMPLETED, IN PROGRESS & PROPOSED
SOUTH PACIFIC DIVISION
U.S. ARMY ENGINEER DISTRICT SAN
FRANCISCO
CORPS OF ENGINEERS
1 JANUARY 2004
U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS

APPROPRIATION TITLE: Construction, General - Dam Safety Assurance

PROJECT: Success Dam and Reservoir, Tule River, California - Dam Safety Seismic Remediation (Dam Safety Assurance) (Continuing)

LOCATION: The project area is located in Tulare County within the 12,500 square-mile Tulare Lake Basin in the southeastern portion of the San Joaquin Valley about 60 miles north of the city of Bakersfield, California. The Tule River drains about 390 square miles into Success Lake and flows from the lake on to the valley through the city of Porterville, and continues another 25 miles through agricultural areas.

DESCRIPTION: A Dam Safety Assurance Program (DSAP) Evaluation Report recommends remedial treatment at Success Dam to prevent foundation liquefaction that could lead to a catastrophic failure of the dam.

AUTHORIZATION: Flood Control Act of 1944

REMAINING BENEFIT-REMAINING COST RATIO: Not Applicable

TOTAL BENEFIT-COST RATIO: Not Applicable

BASIS OF BENEFIT-COST RATIO: Not Applicable

SUMMARIZED FINANCIAL DATA		
Estimated Appropriation Requirements (COE)		$30,900,000
Future Non-Federal Reimbursement		-440,325
Estimated Federal Cost (Ultimate)		30,459,675
Estimated Non-Federal Cost		440,325
Cash Contribution	$ 0	
Other Costs	0	
Reimbursements	440,325	
Total Estimated Project Cost		$30,900,000

	STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project		Not Started	TBD

PHYSICAL DATA

Dam-earthfill

Gated outlet conduit
Uncontrolled spillway 200 feet wide
Crest length 22.5 feet
Crest width 16.0 feet

SUMMARIZED FINANCIAL DATA (Continued)

			ACCUM PCT OF EST FED COST
Allocations to 30 September 2003	$ 3,820,000	1/	
Conference Allowance for FY 2004	1,000,000		
Allocation for FY 2004	900,000	2/	
Allocations through FY 2004	4,720,000		15
Allocation Requested for FY 2005	4,000,000		28
Programmed Balance to Complete after FY 2005	22,180,000		

1/ Includes $344,000 for PED funded under the Operations and Maintenance appropriation.
2/ Reflects $221,000 reduction assigned as savings and slippage, $6,000 rescission and $127,000 reprogrammed to the project.

JUSTIFICATION: Success Dam and Reservoir is located on the Tule River about 5 miles east and upstream of the town of Porterville, Tulare County, California. Construction of the main dam and appurtenances was begun during October 1958. The project was certified complete and accepted by the Government for operation on 15 May 1961. The total first cost of the project is approximately $14,247,000 (1961 dollars). The project lies within Seismic Zone 3 (major seismic hazard), and is operated and maintained under the jurisdiction of the US Army Corps of Engineers, Sacramento District. The main dam is a rolled earthfill structure with a maximum height of 142 feet and is 3,404 feet long.

A 1983 report, “Dynamic Analysis of Success Dam, Success Reservoir, Tule River, California” (US Army Corps of Engineers, Sacramento District, June 1983), concluded that Success Dam would perform adequately in the event of a Maximum Credible Earthquake as required by criteria in ER 1110-2-1806 (16 May 1983). During the review of the dynamic analysis report, it was noted that there was considerable uncertainty about the amount of actual deformation the dam would experience under seismic loading. However, the dam was deemed safe due to the available freeboard of 39 feet when the reservoir is at gross pool. In June 1992, a Technical Review Conference (TRC) reexamined the 1983 report and concluded that the 1983 study was representative of accepted engineering practices at the time of its completion. However, the TRC recognized that recent advances allowed better understanding of the alluvial soils present in the foundation of Success Dam and recommended further studies be performed to update the seismic evaluation.

These recent studies concluded that a Maximum Credible Earthquake would cause extensive loss of strength, slope instability, and deformation over a section of the Success Dam embankment. This damage may be sufficient to result in an uncontrollable loss of the reservoir pool through a breach in the embankment. Similar damage levels may also result from lesser earthquake events. Any breach of the dam should be expected to result in loss of life and damages estimated at $770 million (2002 prices).

JUSTIFICATION (Continued)

The Lower Tule River Irrigation District has been identified as the primary non-Federal cost-sharing sponsor based on their conservation use of the project.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue dam safety alternatives verification testing contract	$ 500,000
Planning, Engineering and Design	3,500,000
Total	$4,000,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Reimburse 15 percent of the costs of modification allocated to irrigation water supply within a period of 50 years following completion of construction.	$440,325	
Total Non-Federal Costs	$440,325	

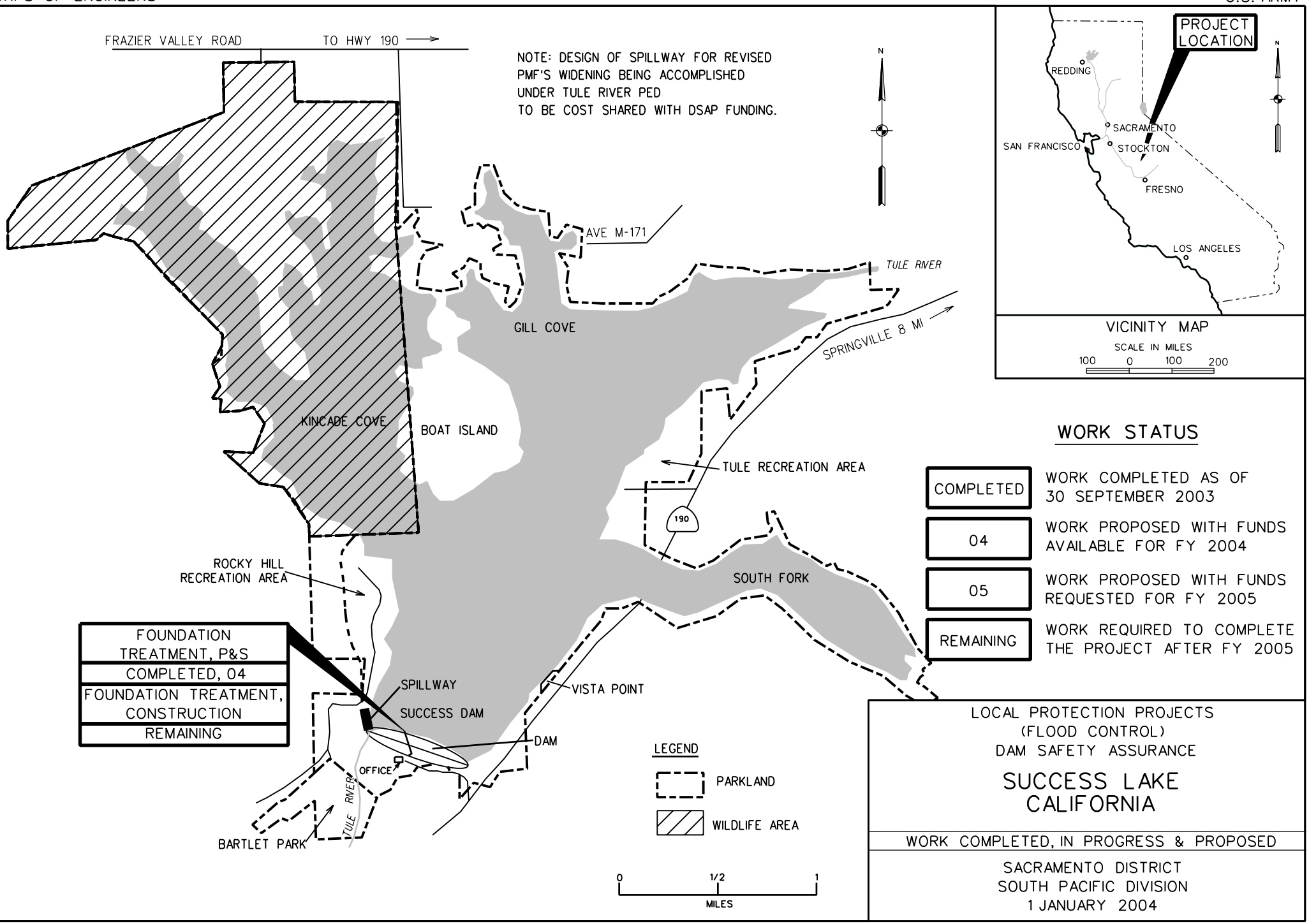
The non-Federal sponsor has agreed to reimburse its share of construction costs within a period of 50 years following completion of construction in accordance with Water Resources Development Act of 1986 and Public Law 98-404.

STATUS OF LOCAL COOPERATION: In accordance with the Water Resources Development Act of 1986 and Public Law 98-404 the sponsor is required to sign a Cost-Sharing Agreement with the Department of Interior prior to construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $30,459,675 is the same as the latest estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A complete environmental assessment will be conducted prior to initiating remedial work.

OTHER INFORMATION: The Success Dam, Success Lake, Tule River, California Dam Safety Assurance Program Evaluation Report dated January 1999 was approved on 7 May 1999. Following approval of the report, preconstruction, engineering and design was initiated using Operations and Maintenance appropriation funding. Construction funds were initially appropriated in FY 2000. Alternatives for dam safety remediation are being screened with selection scheduled for the Spring 2004.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2003
04	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
05	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)
DAM SAFETY ASSURANCE

SUCCESS LAKE
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2004

06 January 2004
Z:\Ppmd_maps\2005\success.fin

2 February 2004

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. NAVIGATION

a. Channels and Harbors.

The budget estimate of $39,067,000 provides for essential operation and maintenance work on 11 channel and harbor projects named in the list which follows. The work to be accomplished under this activity consists of operating and maintaining the coastal navigation channels, harbors and anchorages by means of dredging, constructing bulkheads and spoil disposal areas, snagging, and repairing channel stabilization works, navigation structures; and harbor jetties, all as authorized in the laws pertaining to river and harbor projects.

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 Total	FY 2005 Total	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
CALIFORNIA			
Channel Islands Harbor	36,000	4,985,000	Periodic dredging in FY 05.
Humboldt Harbor and Bay	6,393,000	2,864,000	Dredging and jetty repair in FY 04; dredging of bar and entrance channel in FY 05.
Los Angeles-Long Beach Harbor Model	161,000	175,000	
Oakland Harbor	8,135,000	7,098,000	
Oceanside Harbor	1,070,000	1,110,000	
Richmond Harbor	5,753,000	7,572,000	Variation in dredging requirements.
Sacramento River (30' Channel)	1,940,000	2,745,000	Variation in dredging requirements.
Sacramento River (Shallow Draft Channel)	0	145,000	Maintenance of lock in FY 05.
Sacramento River (Debris Control)	1,135,000	1,246,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. NAVIGATION (Cont'd)

a. Channels and Harbors (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 Total	FY 2005 Total	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
CALIFORNIA (Cont'd)			
San Francisco Bay-Delta Model Structure	1,174,000	1,277,000	
San Francisco Harbor	1,926,000	2,255,000	Variation in dredging requirements.
Suisun Bay Channel	4,761,000	4,559,000	
Ventura Harbor	2,599,000	2,910,000	
Yuba River	61,000	126,000	
OTHER PROJECTS MAINTAINED PERIODICALLY	12,264,000		
TOTAL - Channels and Harbors	47,408,000	39,067,000	
b. Locks and Dam - None			
TOTAL - NAVIGATION	47,408,000	39,067,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. FLOOD CONTROL

a. Reservoirs

The program request of $56,250,000 provides for the operation and maintenance of 29 flood control projects and scheduling of flood control reservoir operations at operating publicly owned and Bureau of Reclamation projects in the Division. The request also includes the requirements for operation and maintenance of recreation facilities at reservoir projects. The amount requested is necessary for operation and ordinary maintenance of project facilities; facility security, labor, supplies, replacements; and contract law enforcement. The requested amount includes an amount from the Special Recreation Use Fees (SRUF) Special Fund for recreation areas.

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 Total	FY 2005 Total	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
ARIZONA			
Alamo Lake	1,299,000	1,528,000	
Painted Rock Dam	1,400,000	1,571,000	
Whitlow Ranch Dam	172,000	221,000	
CALIFORNIA			
Black Butte Lake	1,813,000	1,882,000	
Buchanan Dam - H.V. Eastman Lake	1,756,000	1,958,000	
Coyote Valley Dam - Lake Mendocino	3,181,000	4,348,000	Repairs to riprap on face of dam in FY 05.
Dry Creek (Warm Springs) Lake and Channel	6,191,000	4,779,000	Includes CPSP requirements in FY 04.
Farmington Dam	318,000	526,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 Total	FY 2005 Total	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
CALIFORNIA (Cont'd)			
Hidden Dam – Hensley Lake	1,799,000	1,828,000	
Isabella Lake	780,000	2,080,000	Dam safety assurance study and environmental studies in FY 05.
Los Angeles County Drainage Area	5,628,000	5,376,000	
Merced County Streams Group	261,000	292,000	
Mojave River Reservoir	263,000	328,000	
New Hogan Lake	1,952,000	2,044,000	$50,000 is earmarked for Enviornmental Management Systems implementation in FY 05.
Pine Flat Lake	3,699,000	2,941,000	Includes CPSP requirements in FY 04.
Santa Ana River Basin	3,587,000	4,023,000	Channel clearing in FY 05.
Success Lake	1,992,000	2,007,000	
Terminus Dam (Lake Kaweah)	3,609,000	2,268,000	Includes CPSP requirements in FY 04.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 Total	FY 2005 Total	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
COLORADO			
John Martin Reservoir	2,808,000	2,573,000	
Trindad Lake	1,509,000	1,110,000	
NEVADA			
Martis Creek Lake	517,000	612,000	
Pine and Mathews Canyons	344,000	261,000	
NEW MEXICO			
Abiquiu Dam	2,241,000	1,920,000	
Cochiti Lake	6,957,000	2,881,000	Includes CPSP requirements and environmental baseline study of reservoir operation in FY 04.
Conchas Lake	1,870,000	1,733,000	
Galisteo Dam	407,000	432,000	
Jamez Canyon Dam	2,802,000	721,000	Complete construction of weir, repair levee ponding and complete study for sediment retention structure in FY 04.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 Total	FY 2005 Total	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
NEW MEXICO (Cont'd)			
Santa Rosa Dam and Lake	1,108,000	1,289,000	
Two Rivers Dam	432,000	525,000	
Scheduling Reservoir Operations			
The $2,193,000 requested in FY 2005 supports preparation, review and updating of water control manuals, real-time data collection to monitor hydrologic conditions, and the issuance of gate regulation instructions as necessary at 33 non-Corps dam and reservoir projects at which the Corps is responsible for flood control or navigation.			
Arizona	33,000	35,000	
California	1,362,000	1,285,000	
Colorado	273,000	308,000	Increase in analysis and studies in FY 05.
New Mexico	2,085,000	172,000	Development of computer model to assist water managers in Rio Grande Basin in FY 04.
Utah	433,000	393,000	None.
Total - Scheduling Reservoir Operation	4,186,000	2,193,000	
Cost Shared Recreation	3,063,000		
TOTAL - Reservoirs	67,944,000	56,250,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. FLOOD CONTROL (Cont'd)

b. Channel Improvements, Inspections and Miscellaneous Maintenance

The $6,775,000 requested in FY 2005 provides for ecosystem restoration for one project and supports inspections at flood control projects constructed by the Corps and operated and maintained by non-Federal interests. The inspections are conducted to determine the extent of compliance with legal standards and to advise local interests, as necessary, of corrective measures required to ensure that project structures and facilities will continue to safely provide flood protection benefits. These projects consist of features such as channels, levees, flood walls, drainage structures and pumping plants.

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 Total	FY 2005 Total	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
Rio Grande Bosque Rehabilitation	3,000,000	5,000,000	Ecosystem restoration and improvements for public safety in FY 04 and FY 05.
Inspection of Completed Works			
Arizona	81,000	90,000	
California	1,094,000	1,271,000	
Colorado	78,000	102,000	
Nevada	41,000	192,000	
New Mexico	238,000	44,000	
Utah	61,000	76,000	
TOTAL - Channel Improvements, Inspections and Miscellaneous Maintenance	4,593,000	6,775,000	
TOTAL - FLOOD CONTROL	72,537,000	63,025,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

3. MULTIPLE PURPOSE POWER PROJECTS

The program request of $1,335,000 for the operation and maintenance of the channel below the multiple purpose New Melones Lake project provides the amount for operation requirements of recreation and natural resource facilities along the Stanislaus River downstream of the dam. The amount requested is necessary for operation and maintenance of downstream channel facilities; labor, supplies, materials, and parts required for the day-to-day functioning of the channel project.

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 Total	FY 2005 Total	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
CALIFORNIA			
New Melones Lake	1,585,000	1,335,000	
TOTAL - MULTIPLE PURPOSE	1,585,000	1,335,000	

4. PROTECTION OF NAVIGATION

The $4,847,000 requested in FY 2005 provides for removal of drift and debris; and supports hydrographic surveys, inspections, and studies to determine the condition of navigation channels that do not have any other maintenance work included in the budget request and disseminate the information to users of the projects. For the projects that do not require maintenance, surveys are performed at many of them in order to determine the degree of sedimentation so that users can be advised of channel conditions and future maintenance can be scheduled.

Drift Removal			
San Francisco Harbor, and Bay (Drift Removal), CA	2,044,000	2,674,000	

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

4. PROTECTION OF NAVIGATION (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 Total	FY 2005 Total	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
Project Condition Surveys			
California	1,832,000	2,173,000	Variation in number of projects to be surveyed in FY 05.
TOTAL - PROTECTION OF NAVIGATION	3,876,000	4,847,000	
GRAND TOTAL-SOUTH PACIFIC DIVISION	125,406,000	108,274,000	